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ORGANIZED 1875



INCORPORATED 1886

CATALOGUE No. 30

— OF —



MANUFACTURERS

ARCHITECTURAL TERRA COTTA



For INDEX See Page 121

Do not mutilate this Catalogue to send us the Cuts.

In ordering give the Number and Page, also the **SIZE** of article wanted.

The street numbers on the upper end of Market Street are somewhat mixed. Our office is on the North side of the street, midway between 7th and 8th Streets, Nos. 1358-1360.

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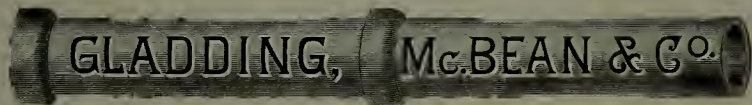
ORGANIZED 1875



INCORPORATED 1886

CATALOGUE No. 30

— OF —



MANUFACTURERS

ARCHITECTURAL TERRA COTTA

Vitrified Salt Glazed Sewer Pipe

WATER PIPE, TERRA COTTA CHIMNEY PIPE AND TOPS

HOLLOW TILE FIRE-PROOFING

PRESSED BRICK

Acid Cocks

Acid Crock

Acid Pipes

Acid Plates

Acid Receivers

Brick and Tile Mantels

Culvert Pipe

Drain Tile

Enameled Brick

Enameled Terra Cotta

Enameled Hollow Tile

Fire Brick

Fire Clay

Fire Brick Dust

Fire Tile

Flower Pots

Flue Linings

Flush Tanks

Grease Traps

Kitchen Sinks

Laundry Tubs

Lawn Vases

Roofing Tile

Stove Linings

WORKS :

LINCOLN, PLACER COUNTY, CAL.

« Lincoln is on the Oregon Division of the Southern Pacific, ten miles from Roseville, its junction with the Main Line »

MAIN OFFICE

No. 1358-1360 Market Street

SAN FRANCISCO, CAL.

BRANCH

Cor. 14th and Webster Sts.

OAKLAND, CAL.

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LINCOLN MAIN 11

TO THE TRADE

WE RESPECTFULLY present for your consideration an illustrated Catalogue and Price List of the principal articles manufactured by us, which will enable purchasers to place their orders intelligently.

If any clay wares not mentioned in our catalogue should be required, by sending us a description or drawing we will endeavor to fill the order in reasonable time.

Our principal aim is to produce goods that will insure satisfaction, and our ability to do so is shown by the rapid increase in our business and the repeated enlargement of our works.

Thanking you for past favors, we solicit a continuance of your patronage.

Respectfully yours,

GLADDING, McBEAN & CO.

A Liberal Discount to the Trade.

The Numbers and Prices given in this Catalogue supersede those in previous ones.

"GET THE BEST."

Our Vitrified Salt Glazed



Is the Standard wherever it has been brought before the Public.

TRUE IN FORM, PERFECTLY FITTING JOINTS, COMPACTNESS OF BODY.

Sold as Low as any Pipe of Equal Quality.

It is manufactured from a combination of the celebrated **LINCOLN CLAYS**, which, by careful analysis, are found to be unequalled for this purpose.

By **skilled** labor and **powerful machinery**, of the **latest** and **best designs**, the material is rendered homogeneous and uniform throughout—under **great pressure** the pipe is made **very compact** and at **high temperature** becomes of a thoroughly **vitrified** and **iron-like body**, which is **impervious** to the **action of acids, gases and steam**, all of which are found in sewers.

The kilns in which these pipes are burned are so constructed as to secure a uniform heat, vitrifying each piece of pipe. Tests of a similar pipe, by hydrostatic pressure, at the East, where it has been used for over forty years, with entire satisfaction to city authorities, and also by external crushing at the Navy Yard at Washington, in competition with the best English and Scotch Pipe, showed a strength superior to any other pipe.

With largely increased facilities for manufacturing, this pipe can now be offered in quantities to suit purchasers, in sizes from 3 to 30 inch caliber, with the latest and most improved fittings.

Vitrified Salt Glazed Sewer Pipe.

PRICE LISTS.

FIRST QUALITY STANDARD PIPE.

Caliber of Pipe	Price per Foot	Branches Each	Curves and Elbows	Reducers or Increasers	Hand Hole Traps	*P Traps	*S Traps	Thickness of Pipe	Weight Per Foot	Feet to 15-ton Carloads	Area in Inches
3"	\$0 15	\$0 60	\$0 50	....	\$1 75	\$1 25	\$1 75	1/2"	6 lbs.	5000	7
4"	20	80	60	\$0 60	2 00	1 50	2 00	1/2"	7 1/2 lbs.	4000	12 1/2
5"	25	1 00	75	75	2 50	2 00	2 50	5/8"	11 1/2 lbs.	2600	19 1/2
6"	30	1 20	1 00	90	3 00	2 50	3 00	3/4"	16 lbs.	1880	28 1/4
8"	40	1 60	1 50	1 20	4 00	....	....	3/4"	22 lbs.	1364	50 1/4
10"	60	2 40	2 10	1 80	6 00	....	....	7/8"	31 lbs.	970	78 1/2
12"	75	3 00	2 75	2 25	....	P and S Traps with Hand Hole 25c Additional		7/8"	41 lbs.	732	113
14"	1 00	4 00	3 75	3 00	....			1 "	50 lbs.	600	154
16"	1 25	5 00	4 25	3 75	....	....	....	1 1/8"	66 lbs.	456	201
18"	1 50	6 00	4 75	4 50	....	....	....	1 1/4"	80 lbs.	376	254 1/2
20"	1 75	7 00	5 75	5 25	....	....	....	1 1/4"	90 lbs.	334	314
22"	2 10	8 40	7 00	6 30	....	....	....	1 3/8"	100 lbs.	300	380
24"	2 50	10 00	8 00	7 50	....	....	....	1 1/2"	120 lbs.	250	452 1/2
30"	4 00	16 00	16 00	16 00	....	....	....	1 3/4"	190 lbs.	158	707

FIRST QUALITY DOUBLE STRENGTH PIPE.

Caliber of Pipe	Price per Foot	Branches Each	Curves and Elbows	Reducers or Increasers	Thickness of Pipe	Weight Per Foot	Feet to 15-ton Carloads	Area in Inches
15"	\$1 10	\$4 40	\$4 40	\$4 40	1 1/4"	65 lbs.	462	177
18"	1 50	6 00	6 00	6 00	1 1/2"	100 lbs.	300	254 1/2
21"	2 00	8 00	8 00	8 00	1 3/4"	132 lbs.	228	346 1/2
24"	2 50	10 00	10 00	10 00	2 "	175 lbs.	172	452 1/2
30"	4 00	16 00	16 00	16 00	2 1/2"	260 lbs.	116	707

Slants (for Brick Sewers) once and a half the price of Pipe per foot, measured on the long side. Split or half pipe three-fifths the price of whole pipe.

SECOND QUALITY SEWER PIPE.

Through the process of burning, some of the pipes are liable to blister, crack, lose their perfect form, or have defective sockets, which renders them unfit for city or private sewers, but for the drainage of

Swamp Lands, Culverts for Railroads, Roadways, and Linings for Wells

they answer the purpose, and can be bought at a much less price.

Prices quoted upon application.

DISCOUNT SHEET....SEWER PIPE AND FITTINGS.

Revised July 25, 1904.

	<u>1st. Quality</u>	<u>2nd. Quality</u>
Standard Sewer Pipe..... 3" to 18"	50%	65%
" " " 20" to 24"	40%	55%
" " " 30"	30%	45%
Double Strength Sewer Pipe... 15" to 18"	40%	55%
" " " " ... 21" to 24"	30%	45%
" " " " ... 30"	20%	35%
Grease Traps	40%	

Terms 60 days or 3 per cent. for cash. Packing extra.

Cartage, (On shipments from Lincoln, Free.
(On shipments from San Francisco or Oakland, 65¢ per ton.

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

LAND ACQUISITION		LAND DISPOSAL	
Acres	Value	Acres	Value
100	100.00	100	100.00
200	200.00	200	200.00
300	300.00	300	300.00
400	400.00	400	400.00
500	500.00	500	500.00
600	600.00	600	600.00
700	700.00	700	700.00
800	800.00	800	800.00
900	900.00	900	900.00
1000	1000.00	1000	1000.00

On the 1st day of January, 1900, the following lands were acquired by the Department of the Interior, Bureau of Land Management, for the purpose of establishing a national monument.

Standard Patterns of Sewer Pipe and Fittings.

Fig. 1.

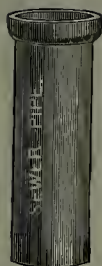


Fig. 2.



Fig. 3.

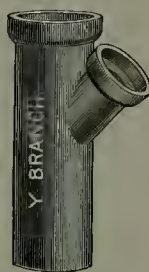


Fig. 8.



Fig. 6.



Fig. 7.



Fig. 5.



Fig. 4.



Fig. 11.



Fig. 10.

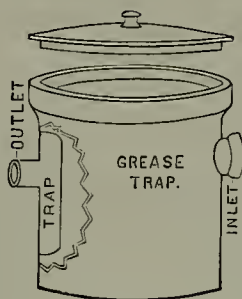


Fig. 9.



Grease Traps.

Inside
Diameter of
Outlet
3 inches



Inside
Diameter of
Inlet
3 inches

NOTICE.—Use three inch pipe to connect grease traps with the lateral sewers.

PRICE LIST OF GREASE TRAPS.

Number	Price	Inside Diameter	Depth	Capacity
1	\$4 00	12 inches	13 inches	3 gallons
2	5 00	16 inches	18 inches	7 gallons

The attention of Architects, Contractors, Masons, Plumbers and all persons who lay drains is called to the above device for preventing the fouling and obstruction of sewers and drains by the deposit of grease therein.

The most common and certain cause of obstruction to house-drains arises from grease, which, though fluid when hot, soon cools in the drains, and gradually, but certainly closes them up. We have known drains thirty to fifty feet in length closed nearly the whole distance from this cause. The amount which will collect from the waste of a single family is surprising to those who are not familiar with the subject. It ordinarily causes much more expense and inconvenience to allow this substance to run into the drain than to catch it in a grease trap, from which it can conveniently be removed.

This method of catching the grease keeps the sewer clean, and by not permitting it to enter the sewer, of course does away with the possibility of decomposition of this substance, thus disposing effectually of one of the most active agents in creating that poisonous **SEWER GAS** so dangerous to health.

We earnestly recommend the use of the above trap in all drains leading from sinks in kitchens as it will be found thoroughly effective in its operation.

N. B.—Place as near the kitchen sink as possible, so that there shall be the least practicable length of pipe to accumulate grease.

They are made of the same material as our sewer pipe.

Sewerage.

General Information on the Subject.

Owing to the prevalence of malignant fevers, directly traceable to violations of sanitary laws, the public has begun to realize the necessity for thorough systems of sewerage and drainage, and is inquiring into the mode of obtaining the most satisfactory results.

Fortunately a large amount of data is at hand to be drawn from, based upon the practical experience of many years close and intelligent observation by eminent civil engineers, possessing special attributes for their work, and whose observations come to us officially embodied in exhaustive reports to boards of commissioners, city councils, state legislatures and national legislative bodies.

The information to be derived from a careful perusal of all the literature on sanitary drainage would be of incalculable benefit to all, yet few have the time and fewer still the inclination to thoroughly study this subject.

Hence, we have condensed a few facts which we take the liberty of presenting to a thinking public. For further details, we refer our readers to such works as "Sewerage and Land Drainage," by Col. Geo. E. Waring; and "Sanitary Engineering," by Baldwin Latham, also Col. Waring's report on the sewerage system of Memphis, Tenn.

Under the Mosaic law, a strict observance of sanitary laws was a part of their religious duty; but in time, "the people sank to the lowest depths of sanitary neglect, from which the powerful voices of typhus, plague and cholera were the first to arouse them."

Impure air, produced by decomposing matter, or germs of disease, which abound in large cities or towns imperfectly drained, and found in a lesser degree in the country surrounding the same, poisons the blood effectually.

Water having the power of drawing and absorbing the impurities from the air, may become freighted with the germs of disease.

Your well drains the water from the surrounding earth a long distance. It is estimated that a well will drain five feet in all directions for every foot in depth, thus a well twenty feet deep will drain a space two hundred feet in diameter.

Filth chemically mixed with water cannot be filtered from it, hence the danger of vaults and cesspools, from which the liquids are absorbed by the earth. Residence on a damp soil engenders consumption, while drainage of that soil lessens it.

The impurities from a vault, seeping into a well in a New York village, gave typhoid fever to 43 persons, of whom 10 died.

Impurities from a vault getting into the water pipes of Over Darwin, England, produced 2,035 cases of typhoid fever, including 104 deaths.

In London, in 1848-9, a single well, though yielding apparently clear, refreshing water, caused the death of 500 persons by cholera in one week, the water being impregnated with decomposing sewage.

Fifty-six out of 74 pupils in a young ladies' seminary at Pittsfield, Mass., had typhoid and 16 died. Cause, pollution of air and water from vaults and cellars improperly drained.

There are very numerous similar cases on record, and how many where the cause was never before discovered?

MATERIAL.

Stone, brick, cement, wood and vitrified clay pipe have all been tested for years, and the merits and demerits of each are now so well understood, that we think it safe to say that the vitrified pipe is preferable to any other known material.

Stone and brick are rough, as well as porous, and allow the poisonous liquids and gases to permeate the ground surrounding them, infecting contiguous wells and streams.

Cement pipe is quickly disintegrated by the action of the acids and alkalies always found in sewers, and cannot be relied upon, as is clearly proven by a large number of letters written by the most prominent engineers in various parts of the United States, to the City Engineer of St. Louis, in response to his request for their views and experience as to the comparative value of cement and vitrified stone pipe. (We have these letters in printed form, and will send a copy to any one interested.) Wood is but short lived, and requires replacing every few years.

A vitrified salt glazed pipe can never wear out, cannot be penetrated by acids or alkalies, is not affected by frost, and is the smoothest material known for sewers, by reason of which the friction is reduced to a minimum, and the capacity thereby increased over stone or brick, from thirty to fifty per cent.

SIZE.

The size of a sewer should be proportioned to the work it is expected to perform.

A four-inch pipe, if well graded, will carry off all the rainfall—which is the measure of the largest demand upon it, of an ordinary city house and lot. A six-inch drain will serve the largest house.



Cross section of a 3x5 foot brick sewer, filled by the gradual accumulation of silt until only sufficient water-way is left for the smallest constant flow.

Old time sewers were built sufficiently large to be entered and cleaned out, almost regardless of the quantity they were expected to carry off; as it was taken as a matter of course they would frequently fill up with sediment from the flowing sewage, and so they did fill up in many cases, being built twice and three times as large as there was any necessity for. In such cases there is not only a useless expense in construction, but the sewer will not begin to do the work as well as one of proper size. For example, suppose a stream four feet wide and two inches deep, on a slight grade the current would be very slow, and sediment would be deposited on the bottom of the sewer, perhaps finally choking it up. But contract the width to one foot, the current would then be eight inches deep, and the friction but one-fourth as much as before, and the velocity of the stream increased so greatly as to sweep everything before it, and make the sewer self-cleansing.

The passion for too large sewers seems to be an almost universal one. The feeling is that it is best to make the conduit "big enough, anyhow," and as a result, nearly every drain that is laid, in town or country, is so much larger than is needful that the expense of keeping it clean is often the most serious item of cost connected with it. It cannot be too often reiterated, that the great purpose of modern water sewerage is to remove immediately, and entirely beyond the occupied portions of a town, all manner of domestic waste and filth before it has time to enter into decomposition; thus preventing an accumulation of dangerous matter and obviating the necessity of employing men in the unwholesome work of hand-cleaning cesspools and sewers of deposit, *which all sewers are apt to become when materially too large for the work they have to perform.*

Again, too much allowance is frequently made for the accessions from lateral drains at various points between the beginning and outlet of the main sewer. It must be remembered that though a pipe may be full at the head, it may, by reason of increasing velocity of the stream, be but two-thirds full in the middle, and but half full at the mouth. Not only this, but these accessions, if by junctions at an obtuse angle, or Y, offer but little resistance, and are frequently found to increase the velocity, without swelling the sectional area. A right angle, or T junction, must necessarily offer more resistance; hence the Y should always be used when practicable.

After draining the subsoil where necessary, with drain tile, and taking care of the surface water as far as practicable, by gutters, etc., what remains, together with the sewage from houses, must be estimated to decide upon the necessary size of the sewer to be constructed.

A large portion of the rainfall never reaches the drain, owing to evaporation, absorption, and various obstructions, and it is considered safe to estimate that not more than two-thirds of a given rain can reach the sewer within the hour it falls.

In making estimates, the following facts should be borne in mind:—

A smooth inner surface sewer offers much less resistance to the flow of water than a rough surface, and is much less liable to catch sediment or obstructions of any kind.

The greater the inclination, the smaller the sewer need be.

INCLINATION.

All sewers should have the greatest possible fall or inclination; the greater the inclination the greater the velocity. In order to prevent deposit in sewers it is necessary to provide a certain velocity in the flow of sewage, which must be secured throughout the whole system of sewers, and such velocity must be sufficient to prevent the subsidence from the liquid of any matters in suspension, and also to move along the bed of the channel any solid deposits.

In order to prevent deposits in sewers, the following velocities should be maintained:—

For sewers of six to ten inches in diameter, a velocity of at least three feet per second is required.

Sewers twelve to twenty-four inches in diameter require a velocity of two and a half feet per second; and in sewers of larger dimensions, in no case should the velocity be less than two feet per second.

“The minimum velocity of two feet per second should be exceeded wherever possible.”

“There is a limit in the other direction which has not yet been determined. It is well recognized among sewerage engineers that the fall of a sewer may be too steep—that is, that it may cause the flow to be drawn out to a thread of a stream so small as to lack depth and force, in spite of its velocity, to carry solid matters along.”

VENTILATION.

Sewers should be ventilated to prevent an accumulation of sewer gas, which is liable to be forced into the houses by drafts of wind or other causes, if precautions are not taken to prevent it.

For ventilating large street sewers, openings carried to the surface at intervals, are probably the best thing yet devised.

For ventilating house drains, a pipe connecting with the sewer, and carried up through and above the highest point of the roof, with a fresh air inlet between the house and the sewer will obviate all danger.

In order to effect a constant movement and change of air in the pipes, two openings are required, an outlet and an inlet. The extension of the soil pipe through the roof *affords an escape of the foul air generated in the sewer, by the decomposition of foul organic matter clinging to the inner surface of the pipes.* In order to render harmless this matter undergoing *putrefaction* a *constant introduction of pure air* from the *outside* is *absolutely* necessary, and as the soil pipe is warmer (being in the house) than the fresh air pipe, located near the ground in front, the result is an almost constant upward current in the soil pipe.

“What is known under the general term ‘sewer gas’ is the emanation from waste matters undergoing decomposition in the absence of free air and light and in the presence of water, whether in a sewer, house drain, cesspool, vault, or a foul, wet and *unventilated* cellar. It frequently exists in the case of a detached country house, and is never absent from a town sewer, though it is possible in the case of these, by perfect *ventilation*, greatly to lessen its production, and so to dilute it as to prevent its doing serious harm.”

FLUSHING.

No system of sewerage that is not kept clean by its own flow, or by daily flushing, can satisfy even moderate sanitary requirements. To depend on the occasional flushing of infrequent rains is not sufficient. It is often possible to pond sewerage in large flush-tanks in sufficient volume, to give a good cleansing to main sewers.

THE REQUIREMENTS OF A GOOD SEWER.

1. It must be perfectly tight from one end to the other, so that all matters entering it shall surely be carried to its outlet, not a particle of impurity leaking through into the soil.
2. It must have a continuous fall from the head to the outlet, in order that its contents may "keep moving," so that there shall be no halting to putrify by the way, and no depositing of silt that would endanger the channel.
3. It must be perfectly ventilated, so that the poisonous gases that necessarily arise, even when decomposing matters are being carried along in water, shall be diluted with fresh air, and shall have such means of escape as will prevent them from forcing their way into houses through the traps in the house-drains.
4. It must be provided with means for inspection and flushing.
5. The branches by which it receives its supply should be so regulated as to admit nothing that will be liable to choke up the channel.

THE DISCHARGING CAPACITY OF CIRCULAR PIPE SEWERS AT VARIOUS INCLINATIONS.

IN CUBIC FEET PER MINUTE.

(There are 7.4805 gallons in a cubic foot.)

INCLINATION		Size 4 in.	Size 6 in.	Size 8 in.	Size 10 in.	Size 12 in.	Size 14 in.	Size 15 in.	Size 16 in.	Size 18 in.	Size 20 in.	Size 22 in.	Size 24 in.	Size 30 in.
1 in	50, or 105 feet per mile	21.48	60.17	123.5	214	339	474	590	663	927	.....	.....	.....	..
1 in	60, or 88 feet per mile	19.73	54.68	112.7	196	310	434	540	607	849	.....	.....	.....	....
1 in	70, or 75 feet per mile	18.25	50.37	104.0	182	287	401	501	561	788	.....	.....	.....	....
1 in	80, or 66 feet per mile	16.94	46.84	97.02	170	268	375	469	525	738	.....	.....	.....	...
1 in	90, or 58 feet per mile	15.89	44.10	91.44	160	252	352	442	492	696	.....	.....	.....	....
1 in	100, or 52 feet per mile	15.02	41.75	86.55	152	240	336	420	470	660	859	1090	1357	.....
1 in	110, or 48 feet per mile	14.23	39.59	82.36	144	228	319	400	446	630	820	1043	1298	.....
1 in	120, or 44 feet per mile	13.53	37.83	78.52	137	218	305	383	427	604	785	997	1241	.....
1 in	130, or 40 feet per mile	13.01	36.46	75.38	132	209	292	367	408	579	755	958	1191	.....
1 in	140, or 37 feet per mile	12.48	34.89	72.59	127	201	281	353	393	558	728	924	1147	.....
1 in	150, or 35 feet per mile	12.05	33.71	70.15	122	194	271	341	379	540	702	892	1109	...
1 in	160, or 33 feet per mile	11.61	32.54	67.71	118	188	263	330	368	523	680	863	1075	...
1 in	170, or 31 feet per mile	11.26	31.36	65.61	115	182	254	320	355	507	661	836	1043	...
1 in	180, or 29 feet per mile	10.91	30.38	63.52	111	176	246	310	344	491	641	813	1012	...
1 in	190, or 27 feet per mile	10.56	29.60	61.77	108	171	240	302	336	477	624	792	983	.....
1 in	200, or 26 feet per mile	10.36	28.81	60.03	105	167	233	293	326	464	606	770	958	1679
1 in	250, or 21 feet per mile	.....	25.68	53.40	93	148	207	261	289	413	539	686	854	1497
1 in	500, or 10 1/2 feet per mile	.....	.....	.....	64	102	143	180	200	286	375	477	593	1046
1 in	750, or 7 feet per mile	.....	.....	.....	.....	.....	115	144	160	229	301	382	477	844
1 in	1000, or 5 1/4 feet per mile	.....	.....	.....	.....	.....	.....	.....	.....	.....	257	327	408	722

TABLE

Showing the Pressure of Water at Different Elevations.

Head Feet	Pressure Pounds Sq. inch	Head Feet	Pressure Pounds Sq. inch	Head Feet	Pressure Pounds Sq. inch	Head Feet	Pressure Pounds Sq. inch	Head Feet	Pressure Pounds Sq. inch	Head Feet	Pressure Pounds Sq. inch
1	0.43	30	13.00	60	26.01	90	39.01	120	52.02	150	65.02
5	2.16	35	15.17	65	28.17	95	41.18	125	54.18	160	69.36
10	4.33	40	17.34	70	30.34	100	43.35	130	56.35	170	73.69
15	6.50	45	19.50	75	32.51	105	45.51	135	58.52	180	78.03
20	8.67	50	21.67	80	34.68	110	47.68	140	60.69	190	82.30
25	10.83	55	23.84	85	36.84	115	49.85	145	62.85	200	86.70

A LEGAL INCH OF WATER,

At present in California, is the water discharged through an opening one inch square, under a pressure of four inches from the center of the orifice to the top of the water above such orifice, and with a free discharge below. The water flowing through such an orifice is equivalent to 0.02 of a cubic foot per second; 1.2 cubic feet per minute; 72 cubic feet per hour, or 1,728 cubic feet per 24 hours, which in water measurement is called one day. To reduce this to gallons multiply by 7.48, which gives 0.1496 gallons per second, 8.976 gallons per minute, 538.56 gallons per hour, or 12,925.44 gallons per day of 24 hours. As all water measures are first figured in cubic feet per second, and then reduced to legal miner's inches, it is convenient to know that one cubic foot per second equals fifty legal miner's inches.

A MINER'S INCH OF WATER

Is a very indefinite term, and has caused many disputes, as different localities have adopted different heights from the center of orifice to the top of the water, varying from three to eight inches. The great hydraulic companies, however, have agreed upon a six-inch pressure, which gives by actual measurement, as made by Hamilton Smith, at the North Bloomfield, 2260.6 cubic feet per twenty-four hours, or 94.2 cubic feet per hour. In reducing to inches the water stored in reservoirs, the practice is to allow 100 cubic feet per hour. For irrigating heads the pressure runs all the way from three to eight inches among commercial ditches. The latter is, or was recently, in use by the National Canal Company, Sacramento county. That company measures through an orifice four inches deep, with six inches additional to overflow. In regard to the measuring box, the practice is quite uniform. It should be so large that the inflow will not create a perceptible current or commotion. The opening is usually two inches in depth; its length being regulated by a tight-fitting slide, each half-inch being equivalent to an inch of water. The edges are smooth, and if necessary are chamfered on the outside. This system of measurement was first introduced in California by a Mr. John Dunn in January, 1851.

WATER CONSUMED IN CITIES AND TOWNS.

According to the report of various cities for 1882, the following was the number of gallons used per capita per diem in each:

Boston	99	gallons to each individual daily.
Chicago.....	114	" " " "
Detroit.....	149	" " " "
Philadelphia.....	66	" " " "
New York.....	79	" " " "
Washington	176	" " " "

Mr. Fanning, authority upon water supply, gives the following as the approximate consumption of water in American cities:—

- a. For ordinary domestic use (not including hose), twenty gallons per capita per day.
- b. For private stables, including carriage washing, when reckoned on the basis of inhabitants, three gallons per capita per day.
- c. For commercial and manufacturing purposes, five to fifteen gallons per capita per day.
- d. For fountains—drinking and ornamental—three to ten gallons per capita per day.
- e. For fire purposes, one to ten gallons per capita per day.
- f. For private hose, sprinkling streets and yards, ten gallons per capita per day during the four driest months of the year.
- g. Waste, to prevent freezing of water in service pipes, and house fixtures in Northern cities, ten gallons per capita per day during the three coldest months of the year.
- h. Waste by leakage of pipes and fixtures and use for flushing purposes, from five gallons per capita per day upward.

Finally, Mr. Fanning gives the following as the approximate estimate of the average daily consumption, basing his calculations entirely upon the population:—

- Places of 10,000 population, 35 to 45 gallons per capita.
- Places of 20,000 population, 40 to 50 gallons per capita.
- Places of 30,000 population, 45 to 65 gallons per capita.
- Places of 50,000 population, 55 to 75 gallons per capita.
- Places of 75,000 and upwards, 60 to 100 gallons per capita.

This estimate corresponds with the estimates made by other authorities on the subject of water supply. It will be seen from this, that, while an average of fifty gallons per capita per day is the requirement of a water supply, only twenty gallons per capita per day are required for the ordinary domestic purposes. The other thirty gallons may be regarded as necessary to supply the demands of luxury or business necessity.

Intermittent Flush-Tanks.

Directions for Building.

The discharging limb of each siphon should be set in a vertical position, and the earth and concrete thoroughly consolidated about the siphon. In building the tank great care should be exercised to make it water tight, by being thoroughly plastered both inside and out. Nothing but the best hydraulic cement (Portland if possible) should be used. The feed pipe should be brought into the tank at sufficient depth below the ground to keep it from freezing and it should be turned up free of the wall inside the tank. It is best to provide a small pet cock for the regular supply, and a large cock for special use, by which to fill the tank rapidly. Tanks should be provided with a tight-fitting cover, and should be connected with the sewer above the water line to keep them from freezing.

This upper connection with the sewer should be put in full size of sewer in such manner as to answer for inspection purposes.

Details for erection will be furnished upon application.

TESTIMONIALS.

PASADENA, CAL., June 18, 1900.

In reply to your inquiry of recent date, I am pleased to state that we have used the Miller Flush Tank in Pasadena for a period of ten years, and find them all they are recommended to be, and think the simplicity of the device should insure its finding favor with all Civil Engineers. The tanks in Pasadena have all been in continuous operation since being installed and promise to last a good many years to come.

(Signed) W. B. CLAPP,
City Engineer.

SPOKANE, WASH., June 21, 1897.

In reply to your inquiry of the 14th inst., I would say that the Miller Automatic Siphons, both Standard and Special Design, placed in the sewers of Spokane the past year, have given such perfect satisfaction that none but the Miller are now specified in our new work. This season I expect to replace with Miller's quite a number of our old siphons which have given more or less trouble in the past.

(Signed) OTTO A. WEILE,
City Engineer.

PHOENIX, ARIZ., Sept. 11, 1899.

Replying to yours of the 17th of August shall say, this Company has 18 of your (Miller) Siphons in its system and that they have always done their work satisfactorily since I have been with the Company, a period of five years.

(Signed) W. A. FARISH,
City Engineer.

Also Engineer to Arizona Water Works and Sewerage Company.

SALT LAKE CITY, UTAH, Dec. 14, 1897.

Flushing with the hose is not satisfactory for the reason that it is expensive, and owing to the time it takes to get over the system the laterals are not flushed often enough to keep them clean. The laterals flushed by siphons are in much better condition than those flushed with the hose. The Miller Automatic Siphons that we have put in are giving entire satisfaction, and in my opinion they are the most efficient siphons used.

(Signed) F. C. KELSEY,
City Engineer.

TAMPA, FLORIDA, June 15, 1900.

Yours of the 12th inst. at hand and in reply to the same shall state that we have in operation 30 of your Rhoads-Williams Siphons and that they give perfect satisfaction. Have never seen tanks work better.

(Signed) F. T. WARREN,
Chief Engineer.

KANSAS CITY, MO., May 12, 1900.

Replying to yours of the 7th inst., shall state, that the forty-five Miller Siphons furnished by your company for the Westport sewer system were thoroughly inspected a few days since and all found to be in excellent working order with the exception of three, which had never been connected with the water mains.

Although erected in 1895-96 these flush tanks have never had One Dollar's worth of repairs put on them—in fact, not much attention has ever been paid them.

I consider this record an excellent testimonial of the efficiency of your Miller Siphons.

(Signed) HENRY A. WISE,
City Engineer.

CHARLESTON, S. C., May 11, 1900.

Five years ago I took the opportunity of writing to you on the merits of the Miller Automatic Siphon in use in the City of Charleston on the sewer system.

They were pronounced in a few words as "simple, quick and sure in operation" and to-day I can find no reason to retract the statement. From personal inspection I find them to be regular and to give entire satisfaction.

(Signed) R. B. OLNEY,
Supt. of Sewers.

ATLANTA, GA., Dec. 20, 1895.

After a wide experience, during which I have thoroughly tested all the "Standard" Siphons, I have no hesitancy in saying that the "Miller" is the best. It is simple in construction, certain in its action and has all the elements of durability.

(Signed) R. F. HARTFORD,
Consulting Engineer.

The Miller Automatic Siphon Flush-Tank.

Invented and Patented by Sidney W. Miller.

This Siphon, as shown by the accompanying illustration, consists of but two parts; the discharging limb or deep-seal trap (with the discharge mouth integral therewith), and the intaking limb or bell, which is placed over the longer leg of the Siphon and held securely in place by its own weight, both parts being plain castings with no machine work whatever.

This Siphon has no moving parts to get out of order, no joints to leak and no small tubes to clog up or choke, and is universally acknowledged to be the simplest and most durable device of its kind ever made.

It received the highest award in its class at the World's Columbian Exposition, Chicago, 1893, for simplicity of construction, efficiency and reliability.

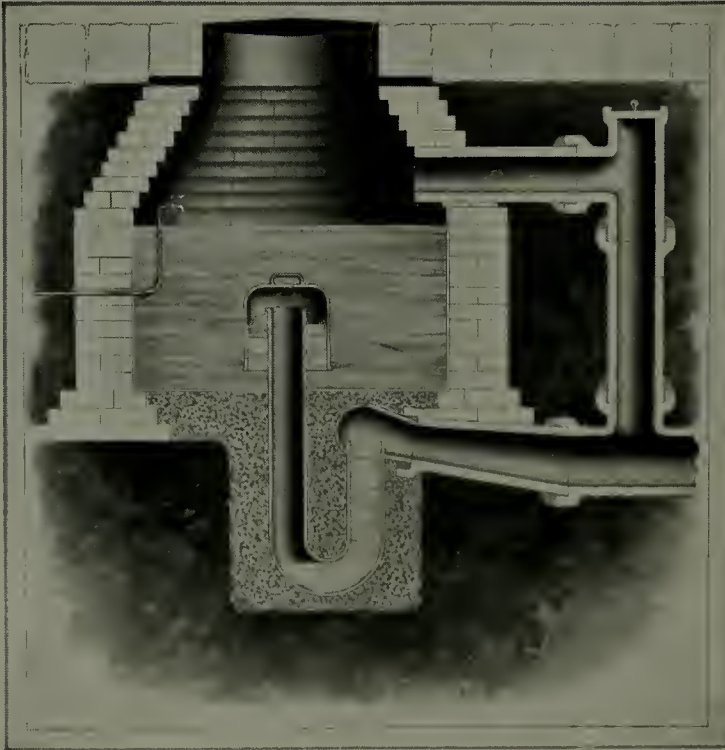


TABLE OF DIMENSIONS WITH PRICES.

Diameter of Siphon Inches	Diameter of Sewer Inches	SIZE AND CAPACITY OF TANKS			Water required to fill 100 lineal feet of sewer Cubic Feet	Price F. O. B. San Francisco for Siphons of Standard Length
		Diameter Feet	Discharging Depth Inches	Discharging Capacity Cubic Feet		
5	6-8	4	25	25	20-35	\$30 00
6	8-10	4½	34	42	35-55	35 00
8	12-15	5	39	65	80-122	50 00

TABLE OF RATES OF DISCHARGE.

5	inch	Miller	Siphon	discharges	0.65	cubic	feet,	or	5	gallons	per	second.
6	"	"	"	"	1.00	"	"	"	7½	"	"	"
8	"	"	"	"	2.2	"	"	"	16½	"	"	"

The Rhoads-Williams Automatic Siphon Flush-Tank.

Invented and Patented by Wm. G. Rhoads and Benozette Williams.

As will be seen by accompanying illustration, this Siphon consists of an intaking limb or bell with vent tube attached, and a discharging limb or deep-seal trap with a blow-off or relief trap cast integral therewith. The Siphon is brought into action by the confined air within the Siphon being released through this blow-off trap, which has a less depth of seal than the main trap.

Up to the time of the introduction of the Miller Siphon on the market, the Rhoads-Williams was the leading Siphon in the country, and to-day is as near perfection as it is possible for any Siphon to be that depends upon a subsidiary device for its operation.

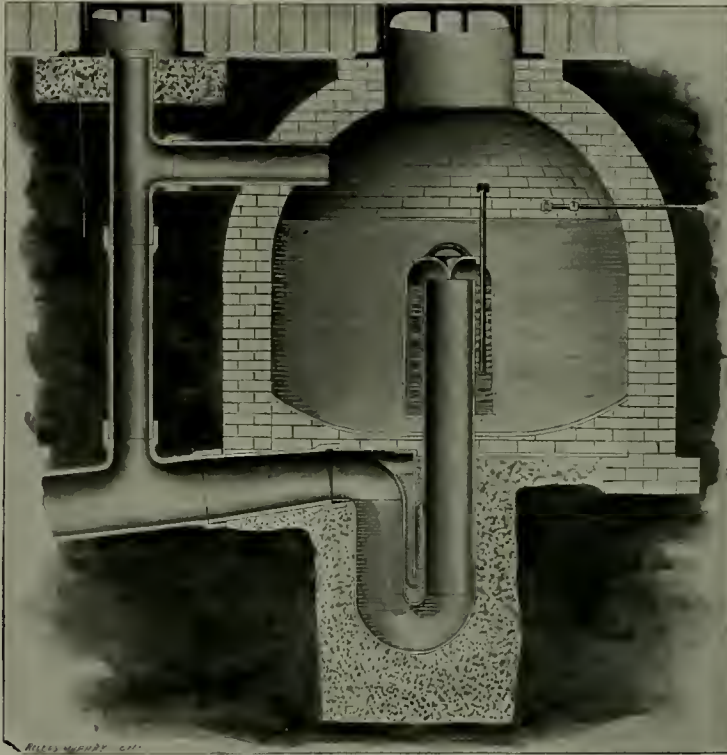


TABLE OF DIMENSIONS WITH PRICES.

Diameter of Discharging Limb Inches	Diameter of Sewer Inches	SIZE AND CAPACITY OF TANKS, WITH SIPHONS OF STANDARD LENGTH			Water required to fill 100 Lineal Feet of Sewer Cubic Feet	Price F. O. B. San Francisco for Siphons of Standard Length
		Diameter Feet	Discharging Depth Inches	Discharging Capacity Cubic Feet		
5	6	4	26	27	20	\$30 00
6	8	4½	31	40	35	35 00
8	10	5	36	59	55	50 00
10	12	6	36	85	79	75 00
12	15	7	40	128	122	100 00

Vitrified Salt Glazed



(For Prices see Page 4.)

We manufacture this pipe expressly for the purpose of conducting water, where the pressure is not greater than a head of twenty-five feet. It has come into extensive use for that purpose within the past few years, and in a great measure is taking the place of iron pipe, on account of its reasonable cost and non-liability to corrode, or be affected by alkali or mineral waters.

The pipe is made in two-foot lengths, with sockets, and out of the best prepared stone-ware clay, and pressed into shape by powerful machinery. The pipe is made very compact, and is thoroughly vitrified by being fired at a high temperature.

In laying this pipe the ends of each length must abut squarely and truly together, so that the annular space between the spigot and socket ends of the pipe will be the same at all parts of its circle.

This annular space must be completely and thoroughly filled with a mortar made of the best English Portland cement, and clean, sharp sand (free from loam or pebbles), mixed in equal parts and used as soon as mixed. From eight to ten days' time should be allowed for the cement to thoroughly harden before the pipe is covered or water is allowed to pass through it.

Water should not be turned off at the outlet, but at the inlet or point of supply.

Place on the line of pipe stand pipes, with movable caps, so that they can be used, when desired, as air escapes.

If our directions are strictly adhered to the Pipe will stand a head of at least twenty-five feet.

Well Tubing.

(For Prices see Page 4.)

With
Sockets



Within the past few years Vitrified Pipes have come into very general use for tubing bored wells, and they are certainly the cleanest and most durable materials ever used for that purpose. Where there is no stone to obstruct the boring, wells can be easily and cheaply made, with augers similar to post augers, constructed for the purpose, and such wells, when lined with this stone-ware tubing, are superior to any others in point of cleanliness and durability.

For this use the sections are sometimes made without sockets, so as to fit the hole more closely, but the regular socket joint is by far the best, as this makes a more solid joint, each piece fitting accurately into the end of the next, thus forming a continuous tube, leaving no crevice for the dirt to fall in, doing away with the necessity of cleaning the well. Vermin cannot crawl through the joints, hence, sweet, pure water is the result.

Dug wells are curbed with the larger sizes and are far superior to a curbing of brick or stone, especially in sandy ground, where common wells are easily made, and when made are constantly filling up with quicksand; but with these pipes a well can be put down with ease, even in a bank of quicksand. This is best done by a man getting inside the pipe, and as he throws out the sand the pipes settle down by their own weight. When the first pipe gets below the surface put on another, and so continue to do until the required depth is reached.

Without
Sockets



Culvert Pipe.

(For Prices see Page 4.)

Vitrified pipes are extensively used for *railroad culverts*, and have been for the last thirty years, and we desire to call the attention of *supervisors and county road commissioners* throughout the country, to the use of these pipes for *culverts across common roads*, in place of small plank bridges and box culverts, so commonly used, and which are constantly getting out of repair, and last at most but a few years; whereas a vitrified pipe culvert, if well put in, will last for ages without repairs, and will prove cheapest as well as the best in the long run.

The construction of a pipe culvert is a very simple matter, but should nevertheless be done with care. If the top of the pipe, when laid, is less than two feet below the surface of the road-bed, first cover the pipes with dirt to the depth of a few inches and level it off, then place a few poles, fence rails or planks over the pipes lengthwise, and throw on more dirt and grade up to the level of the road-bed. The rails or poles will serve to equalize the pressure on the pipes when the wheels of heavy wagons pass over them; but if the dirt is two feet deep or more no other protection is necessary. The ends of the culvert should be protected by small abutments of stone or plank (as shown), otherwise the end pipes would be liable to be undermined by the action of the water, or displaced by thirsty hogs in search of water to drink or wallow in. The size of pipe required in each particular case depends of course upon the amount of water to be provided for, and this depends upon the area of ground from which the rainfall runs to the culvert. This area can generally be estimated with sufficient accuracy, by careful observation, without surveying instruments, and the size required can then be determined by reference to tables on the previous pages. When there is any doubt as to the proper size it is better, of course, to put in one larger than is necessary rather than too small.

We received calls for pipes as small as six inches for this purpose, but the sizes most used range from 8 to 18 inches for turnpikes, wagon roads, farm culverts and street crossings, and from 12 to 30 inches for railroads. Our second-quality pipe is well adapted for this purpose.

Fig. 12.

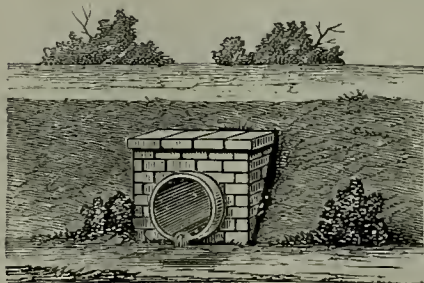


Fig. 13.

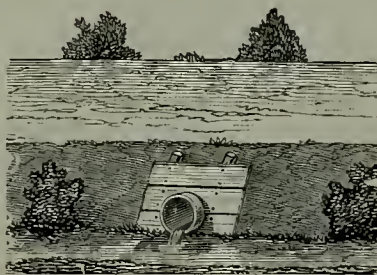


Figure 12 shows the end of a pipe culvert, protected by a small abutment of stone or brick. The foundation should of course extend far enough down into the ground to be below the influence of frost, as otherwise the alternate heaving and settling might throw the end pipe out of position. When stone or brick abutments are too expensive, a good and cheap substitute can be made of planks, by setting them on end, deep enough in the ground to hold them in place, and fitting them closely about the pipe; or still better by setting a post each side of the pipe (see Fig. 13), and by spiking the planks on horizontally, as represented above.

When planks or posts are used it is best to set them with considerable inclination toward the road-bed to prevent the pressure of the embankment from crowding the planks outward.



DESCRIPTION.

Your attention is called to our **Vitrified Tile**, which are extensively used on this coast for the **Drainage or Sub-Irrigation** of lands.

Our Tile are manufactured without sockets or collars, in one foot lengths, and are laid in the trench with their ends joined as closely as possible. If to be used for **Drainage**, the water will enter where the ends of the tile meet, and if for **Irrigation**, it will escape at the same points.

We take it for granted that a few suggestions as to the form and quality of tile best suited to the purpose may not be out of place. First as to form—the round tiles are undoubtedly the best, because they can be laid any side up, and thus a close joint can be secured with much less trouble than with flat bottom or horse shoe tile, especially if a little out of shape.

As to quality, tile should be made of good fire-clay, and hard burned—the more like stone-ware the better. Such tile are of unusual strength, which materially reduces the breakage and expense of transportation.

Too much stress cannot be laid upon the importance of using *hard burnt tile only*, as the failure of a single tile may work extensive mischief.

Tile should be smooth on the inside, as the friction will be less.

The old-fashioned notion that drain tile should be porous in order to absorb the water was an error. The water enters the drain at the joints, and nowhere else to any appreciable extent.

The tile made of common brick clay at various places throughout the country is a good deal better than nothing; but when good, solid, hard burned tile made of fire-clay, can be obtained at about the same price, it is a great mistake to use the soft porous tile. The farmer cannot afford to use inferior tile; he wants only what is reliable, and will be of permanent value.

WE CLAIM ALL THE ABOVE ADVANTAGES FOR OUR TILE.

PRACTICAL SUGGESTIONS FOR THE LAYING OF TILE DRAINS.

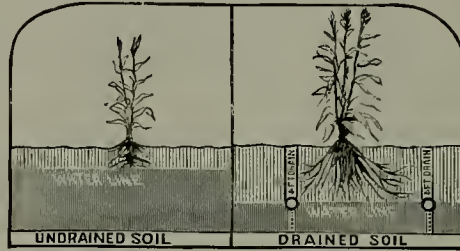
In the beginning of drainage the work should be carefully laid out, the inclination marked on grade stakes, and the whole should be platted and carefully preserved for future reference. If it is not possible to complete the work soon, let it be so done as to look forward to the time when it shall be completed.

In laying a tile drain, it is well to strictly adhere to the following rules:—

1. The drain should have a sufficient outlet for the discharge of all the water that may pass through it.
2. The drain should be deep enough to drain the widest space possible—from three to four feet—and deeper, if necessary to get the water out by a much shorter line; but drain any way, even if you cannot get an outlet to drain so deep.
3. The bottom of the drain should be one regular line of descent, so that the current may have a smooth flow from the head to the mouth of the drain.
4. Every tile should be perfect in form and well burned, having a clear metallic ring.
5. In laying the tile, take pains to fit the joints closely, as with all care there will be sufficient space for the inlet of the water, and close joints will prevent the letting in of silt or washings.
6. At the junction of drains the water should be brought together, flowing as nearly as possible in the same direction, so that the flow of the current may not be obstructed.
7. Place a coarse sieve, or something of that kind, across the outlet, to prevent rats or snakes from crawling in.
8. The size of the tile may be pretty accurately determined by the amount of surface to be drained and the descent of the drain, by reference to the tables on page 19.
9. At the point where the work ceases for the time, secure and note the same, that the work may be readily taken up at any future time.

10. If the drains be laid at a distance of 40 feet apart, 1,060 feet of tile are required to lay one acre; if at a distance of 50 feet apart, 860 feet will be required, and at a distance of 60 feet apart, 750 feet.

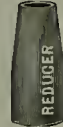
11. Smaller tile than three inches in diameter should not be used, and drains constructed with tile of that size should not exceed one thousand feet in length.



THE EFFECTS OF DRAINAGE.

DROUGHT.—“ It is often asked, ‘ If draining makes a soil dry in a wet year, will it not make it too dry in a dry time ? ’ It has been shown that a drained soil holds a large quantity of moisture by absorption. The soil being very much deepened, the roots of plants have access to the moisture contained in a much larger mass of soil than when undrained. Again, a soil is filled with capillary tubes, which carry moisture to the surface, where it is quickly converted into vapor. If the surface is mellow and the whole depth of soil loose, the tubes are much larger, so that water is conveyed to the surface in much less quantities. Consequently less moisture is lost by evaporation. Still further, in dry times the soil below the surface is much cooler than the air, hence when air containing vapor is brought in contact with it, the vapor is condensed into water and absorbed by the particles of soil. In an undrained soil the surface is made compact by standing water, is baked by the sun when the water is evaporated, is compact below, giving little depth of soil for the plants. Moisture evaporates rapidly through the hard surface, and roots, having a comparatively small range, soon feel the ill effects of dry weather. Some soils are naturally very rich and porous, producing good crops when the spring rains are light enough to allow the soil to be worked, but it has been found that such soil produces much larger crops even in dry times when well drained. In short, thorough under-draining has been found to be a most efficient preventive of drought. It also makes a better tillage possible, which in itself is a great advantage, and it makes all parts of the soil available for the use of useful crops.”

Drain Tile and Fittings.



PRICE LIST.

Inside Diameter of Tile	Price of Tile per 1,000 feet	Price of Branches each	Price of Curves each	Price of Reducers each	Weight of Tile per Foot	Feet to Carload of 15 tons
2 inch.	\$25 00	\$0 25	\$0 25	\$0 25	2½ lbs.	12,000
3 inch.	30 00	35	35	35	3½ lbs.	8,600
4 inch.	40 00	40	40	40	5½ lbs.	5,460
5 inch.	60 00	50	50	50	8 lbs.	3,750
6 inch.	90 00	60	60	60	10 lbs.	3,000
8 inch.	150 00	75	75	75	18 lbs.	1,670
10 inch.	250 00	1 00	1 00	1 00	21 lbs.	1 430
12 inch.	300 00	1 25	1 25	1 25	29 lbs.	1,040

DISCOUNT SHEET...DRAIN TILE.

Revised July 25, 1904.

Drain Tile	(F. O. B. cars at Lincoln.....	30%
	(In warehouse at San Francisco or Oakland	10%

Terms 60 days or 3 per cent. for cash. Packing extra.

Cartage,	(On shipments from Lincoln, Free.	
	(On shipmnets from San Francisco or Oakland, 65¢ per ton.	

DISCOUNTS AND DEDUCTIONS

Revised July 1, 1904.

(T. O. C. of Income 201
(Ded. Title
(Is withheld as per Table of Deductions 102

Taxes on Income and Property
(On all property of Income, Free.
(On all property of Income, Free.
(On all property of Income, Free.

Capacity of Drain Tile.

The following table may be found convenient for reference by those who are considering the subject of drainage:—

Number of Acres which Tiles of the following Sizes and Inclinations will Drain when the Rainfall does not exceed Half an Inch in Twenty-four Hours.

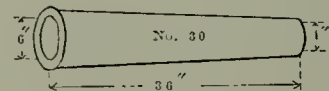
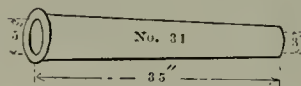
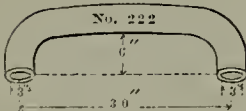
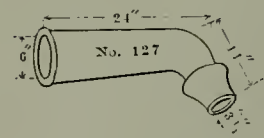
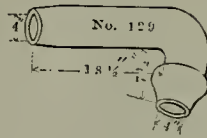
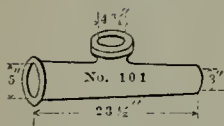
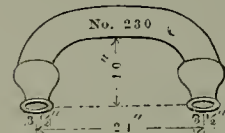
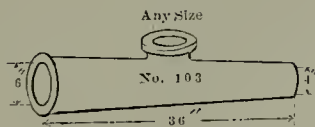
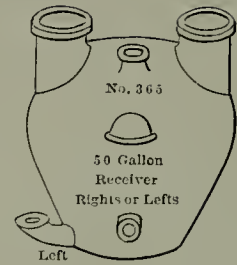
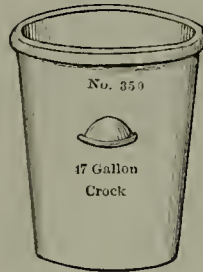
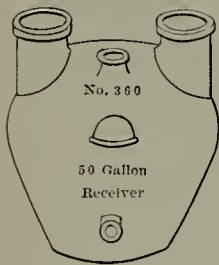
INCLINATION		2 Inch Tile	3 Inch Tile	4 Inch Tile	5 Inch Tile	6 Inch Tile	8 Inch Tile	10 Inch Tile	12 Inch Tile
1 foot in	10 feet	6.6	18.9	.....	.....	.....	.....	.....	.....
1 "	20 "	4.7	13.	26.8	47.2	.....	.....	.....	.....
1 "	25 "	4.2	11.4	24.	44.4	66.2	.....	.....	.....
1 "	30 "	3.9	10.9	21.9	41.2	61.5	126.4	.....	.....
1 "	40 "	3.4	9.4	19.	36.1	53.3	109.6	190.5	.....
1 "	50 "	3.	8.4	17.	30.4	47.7	98.	170.4	269.
1 "	60 "	2.7	7.6	15.6	29.1	43.4	90.	156.	246.
1 "	70 "	2.5	6.9	14.5	26.5	39.9	83.	144.4	228.1
1 "	80 "	2.3	6.5	13.4	23.6	37.2	77.	135.	213.
1 "	90 "	2.2	6.1	12.6	23.1	35.	72.5	127.	200.5
1 "	100 "	2	5.7	11.9	21.2	33.1	69.2	120.6	190.5
1 "	150 "	1.6	4.5	9.5	19.2	26.6	56.	97.3	154.4
1 "	200 "	.....	3.9	8.2	15.2	22.8	48	83.9	132.5
1 "	250 "	.....	3.5	7.5	13.4	20.4	43.4	74.4	117
1 "	300 "	.....	.....	6.9	12.3	18.4	38.2	65.5	107.
1 "	400 "	.....	.....	5.9	10.6	16.5	34.6	60.3	90.7
1 "	500 "	.....	.....	5.3	9.6	14.8	30.1	54.	81.6
1 "	600 "	.....	.....	4.8	9.	13.3	28.	48.6	74
1 "	800 "	.....	.....	4.1	7.6	11.4	24.	41.9	65.
1 "	1,000 "	.....	.....	.....	6.7	10.2	21.2	37.2	56.
1 "	1,500 "	.....	.....	.....	.....	8.7	17.6	30.8	47.
1 "	2,000 "	.....	.....	.....	.....	.....	.....	27.	40.8

NOTE. One acre covered with water one-half inch in depth, is equivalent to 1,815 cubic feet, or 13,577 gallons. The capacity of the tile can be expressed in cubic feet or gallons by multiplying the number of acres drained by either 1,815 or 13,577.

Table Showing the Quantity of Rainfall per Acre.

Inches in Depth of Rain	Cubic Feet Per Acre	Gallons Per Acre	Inches in Depth of Rain	Cubic Feet Per Acre	Gallons Per Acre
.1	363	2,715	.6	2,178	16,292
.15	544 ¹ / ₂	4,073	.65	2,359 ¹ / ₂	17,650
.2	726	5,430	.7	2,541	19,007
.25	907 ¹ / ₂	6,788	.75	2,722 ¹ / ₂	20,365
.3	1,089	8,146	.8	2,904	21,723
.35	1,270 ¹ / ₂	9,503	.85	3,085 ¹ / ₂	23,081
.4	1,452	10,861	.9	3,267	24,438
.45	1,633 ¹ / ₂	12,219	.95	3,448 ¹ / ₂	25,796
.5	1,815	13,577	1.0	3,630	27,154
.55	1,996 ¹ / ₂	14,934			

Acid Receivers, Crocks and Fittings.



We show on this page a few of the shapes of Acid Fittings that we make. If you desire further information, send for our blue print sheets Nos. 346, 347, 348 and 349, showing about one hundred and twenty-five shapes and sizes of fittings and plates that we can make at short notice.

Prices quoted upon application.

IMPERISHABLE LAUNDRY TUBS AND KITCHEN SINKS

These Tubs and Sinks are carefully made, of selected Clays, and glazed in light yellow.

They are seamless, clean, non-absorbent, and more durable than iron.

The "Placer" Laundry Tubs.



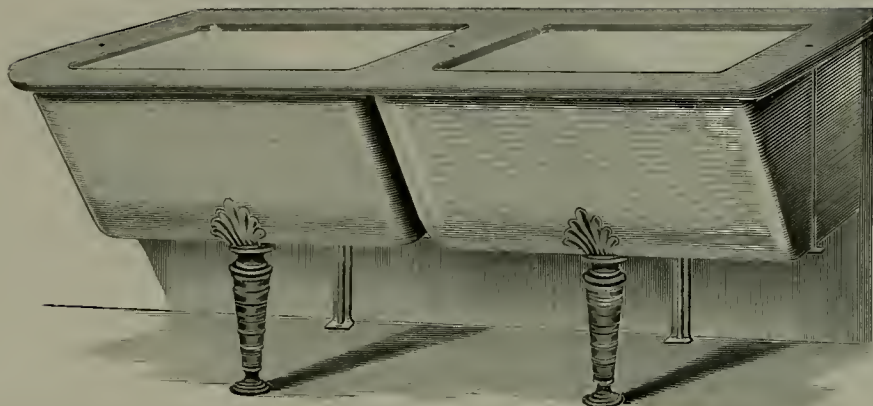
Please paste this revised list over the prices on page 21 of our catalogue No. 30.
DECEMBER 20th, 1905. GLADDING, McBEAN & CO.

No. 1005.

Length Outside.....	25	inches
Width Outside.....	22 1/2	inches
Depth Inside.....	13	inches
Price of one tray without fittings.....	\$10.00	
Pine Wringer Attachment with Bolt.....	} For each Tray when placed in sets of two or more.....	3.50
Painted Iron Leg with Bar.....		
Nickel-plated Coupling with Rubber Stopper.....		

Crates and Crating 75 cents each—50 cents rebate for empty crates returned with charges prepaid.

The "Lincoln" Flat Rim Laundry Tubs.



Please paste this revised list over the prices on page 22 of our catalogue No. 30.
DECEMBER 20th, 1905.

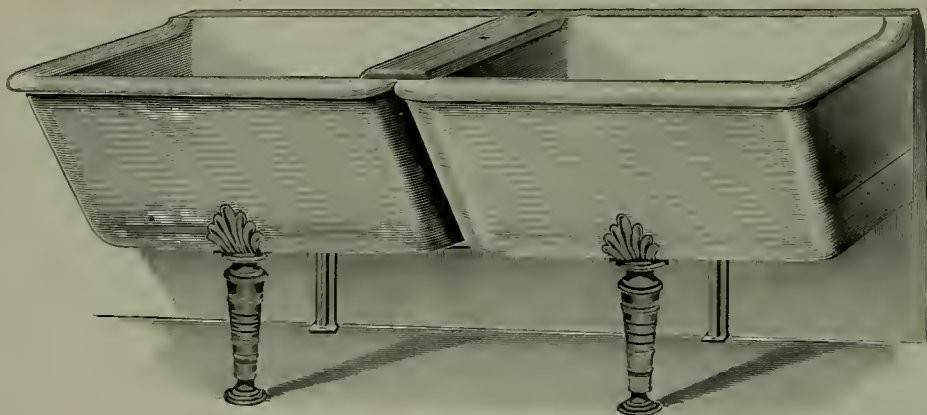
GLADDING, McBEAN & CO.

No. 1000.

Length Outside	30	inches
Width Outside	25	inches
Depth Inside	15	inches
Price of one tray without fittings		\$12.50
Ash Frame with Bolts	} For each Tray when placed in sets of two or more.....	* 8.50
Painted Iron Leg with Bar		
Nickel-plated Coupling with Rubber Stopper		

* If the Ash Frame is omitted and a Wringer Attachment substituted, deduct \$2.50 from this amount.

Crates and Crating 75 cents each—50 cents rebate for empty crates returned with charges prepaid.



Please paste this revised list over the prices on page 22 of our catalogue No. 30.
DECEMBER 20th, 1905.

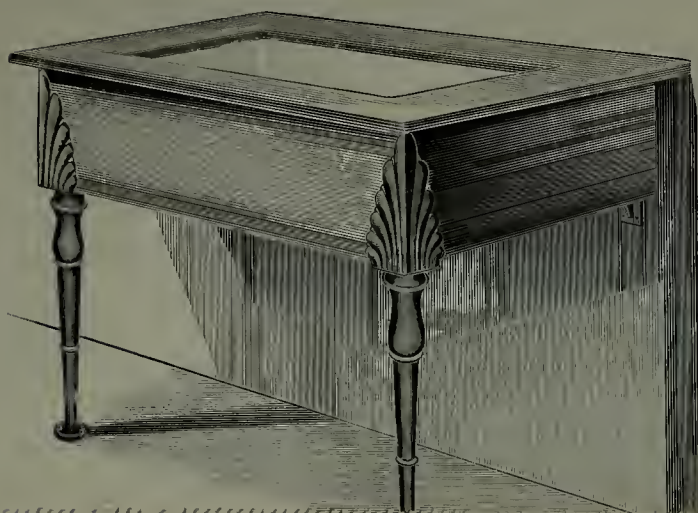
GLADDING, McBEAN & CO.

No. 1010.

Length Outside	31	inches
Width Outside	25	inches
Depth Inside	15	inches
Price of one tray without fittings		\$15.00
Ash Wringer Attachment with Bolt	} For each Tray when placed in sets of two or more.....	6.00
Painted Iron Leg with Bar		
Nickel-plated Coupling with Rubber Stopper		

Crates and Crating 75 cents each—50 cents rebate for empty crates returned with charges prepaid.

The "Lincoln" Flat Rim Kitchen Sinks.



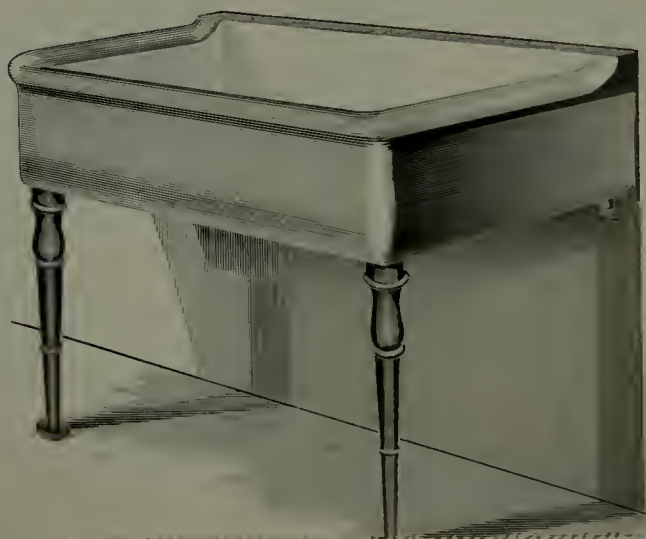
Please paste this revised list over the prices on page 23 of our catalogue No. 30.
DECEMBER 20th, 1905.

GLADDING, McBEAN & CO.

Size.	Length Outside.	Width Outside.	No. 1020. Depth Inside.	Price Each	Ash Frame, Painted Iron Legs and Brackets, with Nickel-plated Strainer and Coupling.
No. 1	30 in.	20 in.	7 in.	\$ 8.50	* \$10.00
No. 2	36 in.	23 in.	7 in.	11.00	* 10.00

* If the Ash Frame is omitted and Roll Rim Legs (No. 1030) are used, deduct \$3.50 from these prices.
Crates and Crating 75 cents each—50 cents rebate for empty crates returned with charges prepaid.

The "Lincoln" Roll Rim Kitchen Sinks.



Please paste this revised list over the prices on page 23 of our catalogue No. 30.
DECEMBER 20th, 1905.

GLADDING, McBEAN & CO.

Size.	Length Outside	Width Outside	No. 1030. Depth Inside.	Price Each	Painted Iron Legs and Brackets with Nickel-plated Strainer and Coupling.
No. 1	31½ in.	20½ in.	7 in.	\$11.00	\$9.50
No. 2	37½ in.	23½ in.	7 in.	13.50	9.50

Crates and Crating 75 cents each—50 cents rebate for empty crates returned with charges prepaid.

Terra Cotta Chimney Pipe.

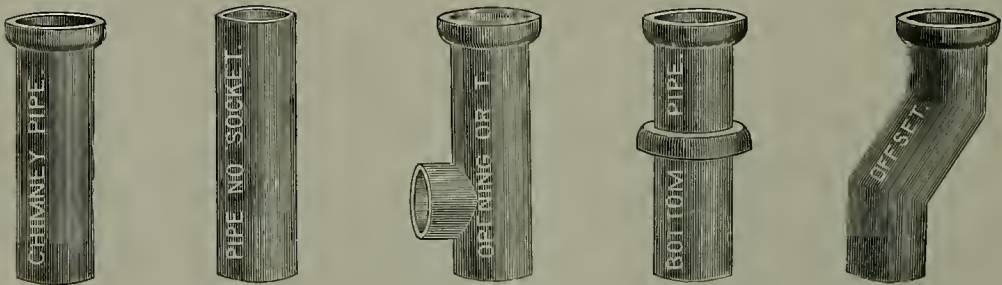
We take pleasure in introducing our improved Terra Cotta Chimney Pipe. They have come into very general use within the last few years, especially where bricks are not plenty or cheap, and they have given entire satisfaction. Among the advantages are :

1st. They are made of the best prepared Fire Clay, a portion of which is calcined, and they do not contract and expand by heat and cold, thus making the most durable and perfect chimney flue known.

2d. They are cheaper than brick.

3d. They are smooth, and soot does not stick to them, as in the case with brick flues. In fact, pipes make a more perfect chimney than bricks, a smooth round bore being the best possible form for a smoke flue.

4th. They are safer than brick flues. By referring to the illustration it will be seen that by filling the socket with cement, it will form a solid flue from starting point to roof. They do not require a mechanic to put them up, but can be erected by a person of ordinary intelligence. *Care should be taken to fill the socket with cement or mortar, as upon that depends its safety.* They are very much lighter than brick (weight of six-inch pipe is only twenty pounds per foot) and can be started on a bracket at any point. All lengths are made two feet, unless otherwise ordered.



PRICE LIST.

Caliber of Pipe.	Price of Pipe per foot with or without Sockets.	Openings or T's Each.	Bottom Pipe Each.	Elbows Each.	Offsets Each.	Weight of Pipe per Foot.
5 inch	25 cents	\$1.00	\$1.00	\$0.75	\$1.25	15 lbs.
6 "	30 "	1.20	1.20	1.00	1.50	20 lbs.
8 "	40 "	1.60	1.60	1.50	2.00	25 lbs.

NOTE.—Our Chimney Pipe, Openings and Bottom Pipes are furnished in two-foot lengths. Shorter or longer lengths (up to four feet), and larger sizes can be furnished on short notice.

See cut of an Elbow, Fig. 4, page 5.

DISCOUNT SHEET.

Revised July 25, 1904.

TERRA COTTA CHIMNEY PIPE AND FITTINGS, FLUE LININGS.

Terra Cotta Chimney Pipe and Fittings.....	40%
Flue Linings.....	40%

Terms 60 days or 3 per cent. for cash. Packing extra.

Cartage, (On shipments from Lincoln, Free.
(On shipments from San Francisco or Oakland, 65¢ per ton.

1907 12 31

1907 12 31

1907 12 31

1907 12 31

1907 12 31

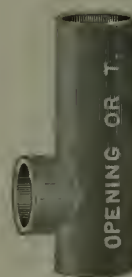
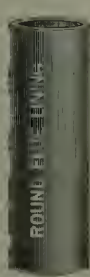
1907 12 31

Terra Cotta Flue Linings.

The smoke flues of all first-class buildings recently erected are lined with terra cotta flue linings. A brick chimney, as ordinarily constructed, has on the inside a thin coating of lime mortar to make it smooth. In a few years the action of the heat and gases from coal causes the mortar lining and mortar in the joints to fall off, especially when the soot in the chimney burns out, then there remains a small opening in the brick work, through which there is always a draught. The heat from the chimney passes through this hole, and sets fire to the adjacent wood work. This is the origin of fires from defective flues, from which cause not less than twenty-five per cent. of our fires occur.

Our flue linings are made of the best prepared fire clay. They do not rust, decay, crack or burn out, are non-conductors of heat, make a smooth, continuous flue with good draught, and obviate the danger caused by defective flues.

Insurance companies recognize the additional safety secured by the use of these flue linings, by insuring buildings thus protected at lower rates than they otherwise would. Several cities have ordinances compelling their use in all new buildings, and there can be little doubt that such a policy will become general as soon as their utility shall become generally understood.

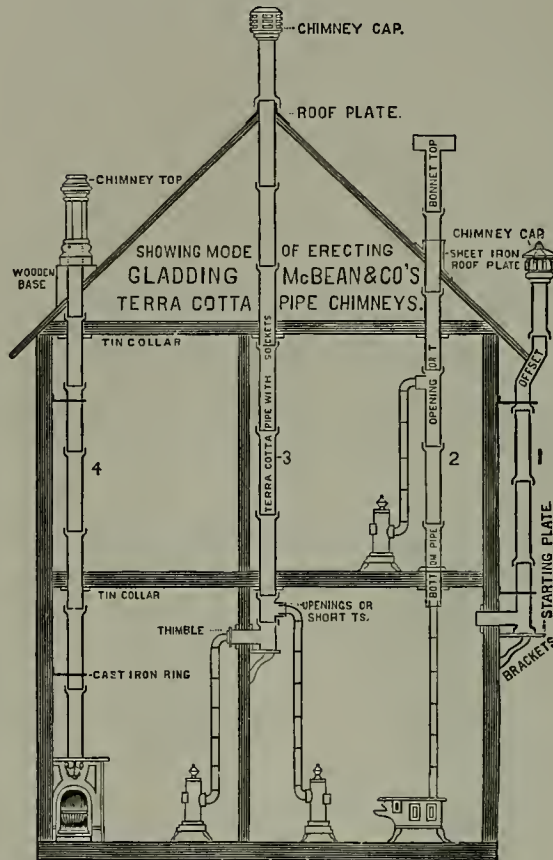


PRICE LIST.

Inside Measure.	Outside Measure.	Form.	Price per Foot	T's. Each.	Weight per Foot.	Feet to Carload of 15 tons
5 inches.	7 inches.	Round	\$0.25	\$1.00	14 lbs.	2144
6 inches.	8 inches.	Round	.30	1.20	19 lbs.	1580
8 inches.	10 inches.	Round	.40	1.60	22 lbs.	1364
10 inches.	12½ inches.	Round	.60	2.40	30 lbs.	1000
3½ x 7½ inches.	4½ x 8½ inches.	Square	.20	.....	10 lbs.	3000
7 x 7 inches.	8½ x 8½ inches.	Square	.35	.....	20 lbs.	1500
7 x 11½ inches.	8½ x 13 inches.	Square	.60	.....	30 lbs.	1000
7 x 15½ inches.	8½ x 17 inches.	Square	.75	.....	33 lbs.	910
11½ x 11½ inches.	13 x 13 inches.	Square	.75	.....	37 lbs.	810
11½ x 15½ inches.	13 x 17 inches.	Square	1.00	.....	40 lbs.	750
15½ x 15½ inches.	17 x 17 inches.	Square	1.50	.....	50 lbs.	600

A charge of one foot additional will be made for pipe holes.

Directions for Erecting Terra Cotta Pipe Chimneys.



Mode of Erecting.—The pipes should be set with their socket ends up (more especially for inside work), as this gives the best opportunity of making the joints tight, and prevents the mortar from dropping out. Especial care should be taken to completely fill the annular space between the spigot and socket ends of the pipe with mortar, as upon that depends the chimney's safety. Carefully remove from inside of the pipe all projecting mortar before it hardens. Where joints are made above the roof, as illustrated in chimney 2, or when chimneys are erected on the outside of a building, great care should be taken to properly fill the joints with hydraulic cement mortar, and slope the cement filling from the pipe to outside of socket, so that the water will drain off and not enter the chimney.

In districts where considerable rain falls, it might be advisable where chimneys are erected on the outside of a building, to reverse or erect with the sockets down, as illustrated in chimney 1.

Size of Pipe.—The five-inch pipe is mostly used for small stoves; the six-inch for ranges; the eight-inch for fire-places or where more than one stove is to be connected with the chimney. Any chimney will give better satisfaction if only one stove is connected with it.

We keep in stock at all times, the 5, 6 and 8-inch, with the necessary fittings, and frequently have on hand 10 and 12-inch, and can make any size up to 30-inch on short notice.

Pipe without Sockets.—If you erect the chimney with the socket ends up, which is the proper mode, and desire to finish with a cap or top, the last or top pipe on the chimney must be without a socket, so that the cap or top will fit over it.

Occasionally in transit a length of pipe may have a piece broken out of the socket; in that event knock off the remainder of the socket, or if broken below that point, cut the pipe off evenly with a hatchet, chisel or saw, and use it for a top pipe.

Openings or Ts.—Our chimney Ts are made in one and two feet lengths, and with openings 2 to 12 inches in length. If you desire to connect two stoves with one chimney below the ceiling, as illustrated in chimney 3, you would require two Ts each a foot in length, one with an opening of sufficient length to pass through the partition. We make the openings of the following sizes, viz.: on the 5-inch pipe, 5 inch; on the 6-inch pipe, 5 and 6 inch; and on the 8-inch pipe, 6 and 8 inch.

Bottom Pipes.—Bottom Pipes are made in two foot lengths, with the supporting rim placed at different distances (6 to 16 inches) above the bottom or spigot end. These pipes are used where you wish to start a chimney in the middle of a room, or at some point where it is not convenient or desirable to construct a shelf. The projecting rim is made to rest on the ceiling joists, or any support erected for the purpose, and is of sufficient strength to carry the weight of twenty-five feet of pipe.

Tin Collars.—Where the pipe passes through a roof, ceiling, partition, or side of a building, the circular opening should be at least one inch larger than the outside diameter of the pipe, around which should be placed, and closely fitted to it, a tin or sheet-iron collar, which could be nailed to the wall or ceiling. When a tin collar is used where the pipe passes through the roof, hydraulic cement mortar should be used in connection with it, so as to make it perfectly water tight.

Iron Roof Plates.—A roof plate (as illustrated in chimney 2) is slightly flaring at the top, so as to give sufficient space around the pipe in which to place hydraulic cement mortar. The upper, or side of the plate nearest to peak of roof, should be placed under the shingles.

Another form of roof plate and one which we can highly recommend is illustrated in chimney 3. Instead of placing a pipe without a socket on the top of the chimney, it is placed one length lower, and one with a socket substituted, and placed with the socket end down and over the roof plate.

Starting Plates.—Starting Plates can be of Terra Cotta, Iron or Wood. Place on either of these plates a layer of mortar one or two inches in thickness, into which the pipe should be pressed. A common and secure way is to lay a couple of courses of brick work on a wooden shelf.

With one of our hole starting plates the chimney can easily be cleaned. The hole can be closed with a cover, similar to those used to close stove-pipe holes in brick chimneys.

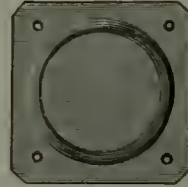
Mortar.—Either of the following mortars will answer for inside work; ordinary lime mortar well slacked, lime mortar and hydraulic cement mixed, or one part hydraulic cement to two parts of clean, sharp sand. For work exposed to the weather, use the hydraulic cement and sand, and use as soon as mixed.

Wooden Base.—A wooden base built into the roof, as illustrated in chimney 4, with the pipe extending six to twelve inches above the top of the base, on which and over the pipe is placed one of our Chimney Tops, which would make an ornamental and fine finish to the chimney, and prevent rain from entering it.

Terra Cotta Starting Plates.



With Hole.



Solid.

PRICE LIST.

10x10 inch, for supporting 5-inch chimney pipe, either with hole or solid, price.	40 cents.
12x12 " " " 6 " " " " " " " " " "	50 "
14x14 " " " 8 " " " " " " " " " "	60 "

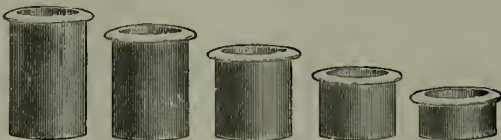
Terra Cotta Chimney Caps.



PRICE LIST.

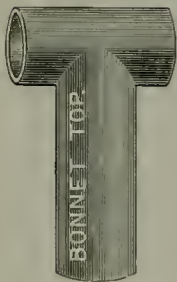
No. 18—	\$1.25	each.	This size fits over	5 inch	Terra Cotta Chimney Pipe.
No. 19—	1.50	"	"	6	"
No. 20—	2.00	"	"	8	"
No. 21—	1.00	"	"	5	"
No. 22—	1.25	"	"	6	"
No. 23—	1.50	"	"	8	"
No. 33—	1.25	"	"	5	"
No. 34—	1.50	"	"	6	"
No. 35—	2.00	"	"	8	"
No. 36—	1.50	"	"	5	"
No. 37—	2.00	"	"	6	"
No. 38—	2.50	"	"	8	"
No. 40—	2.00	"	"	7	x7 inch Terra Cotta Flue Linings.
No. 41—	2.50	"	"	7	x11 1/2 "
No. 42—	3.00	"	"	7	x15 1/2 "
No. 43—	3.50	"	"	11 1/2	x11 1/2 "
No. 44—	4.00	"	"	11 1/2	x15 1/2 "
No. 45—	4.50	"	"	15 1/2	x15 1/2 "

Terra Cotta Thimbles.



PRICE LIST.

DIAMETER.	4 1/2 Inches Long.	6 Inches Long.	8 Inches Long.	10 Inches Long.	12 Inches Long.
5 inches.	20 cents.	25 cents.	30 cents.	35 cents.	40 cents.
5 1/2 "	20 "	25 "	30 "	35 "	40 "
6 "	25 "	30 "	35 "	40 "	45 "
7 "	30 "	35 "	40 "	45 "	50 "
8 "	35 "	40 "	45 "	50 "	55 "



Terra Cotta Bonnet Tops.

Size.	Length.	Price.	Weight.
5 inch.	3 1/2 feet.	\$1.50	50 lbs.
6 inch.	3 1/2 feet.	2.00	65 lbs.
8 inch	3 1/2 feet.	2.50	80 lbs.

DISCOUNT SHEET.

Revised July 25, 1904.

TERRA COTTA CHIMNEY TOPS, CAPS AND THIMBLES.

Terra Cotta Chimney Tops.....	40%
Terra Cotta Chimney Caps.....	40%
Terra Cotta Thimbles.....	40%

Terms 60 days or 3 per cent. for cash. Packing extra.

Cartage, (On shipments from Lincoln, Free.
(On shipments from San Francisco or Oakland, 65¢ per ton.

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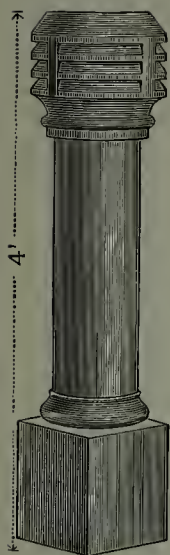
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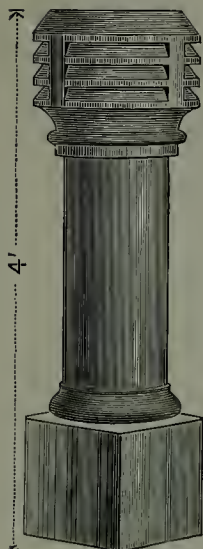
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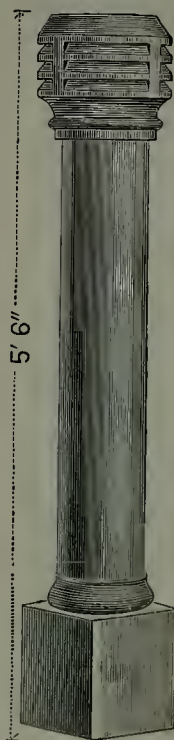
Terra Cotta Chimney Tops.



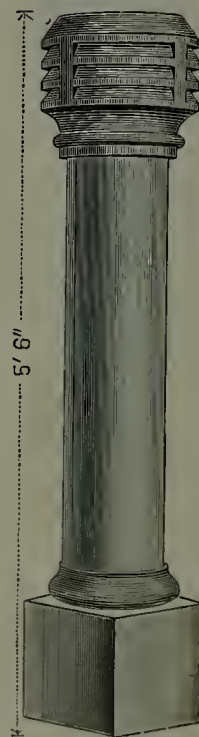
No. 140.



No. 141.



No. 142.



No. 143.

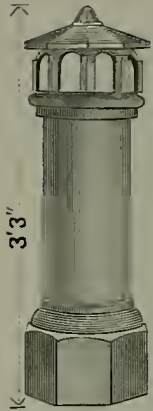
PRICE LIST.

Number.	Price.	Outside at Base.	Inside at Base.	Inside at Top.
140	\$3.50	11 x 11 inches.	9 x 9 inches.	6 inches.
141	4.50	12½ x 12½ inches.	10½ x 10½ inches.	8 inches.
142	5.00	11 x 11 inches.	9 x 9 inches.	6 inches.
143	6.00	12½ x 12½ inches.	10½ x 10½ inches.	8 inches.

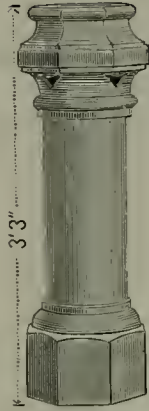
DIRECTIONS FOR ERECTING TERRA COTTA CHIMNEY TOPS.

Our tops are easily placed on any chimney, by taking off one or two courses of brick, or sufficient to give the top a firm hold, then replacing the brick about the base of the Top with cement mortar. See that the top is set perfectly level. Many persons are under the impression that these tops will not retain their places in windy weather, and think they should be constructed so as to socket into the chimney, but this is a mistake. If the proper pains are taken to set them on solid brick-work, they will resist as heavy wind-storms as the chimney itself.

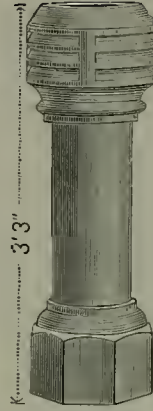
Terra Cotta Chimney Tops.



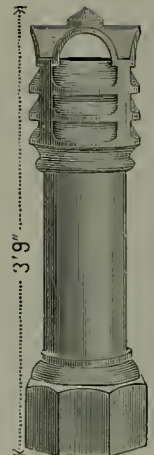
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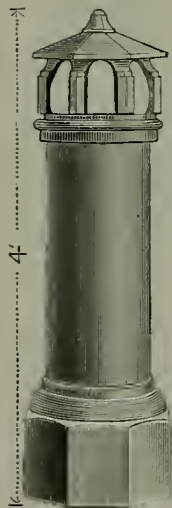
No. 166.



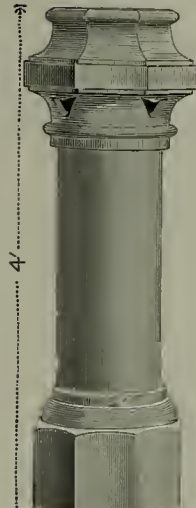
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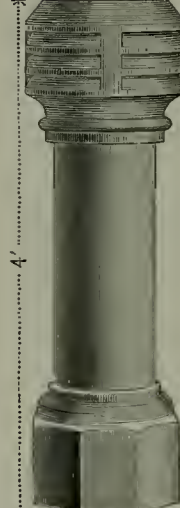
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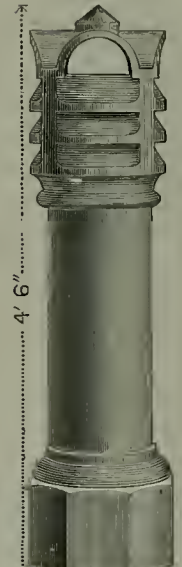
No. 137.



No. 138.



No. 139.



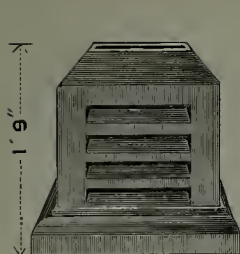
No. 136.

PRICE LIST.

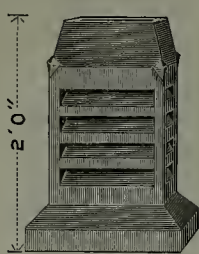
Number.	Price.	Outside at Base.	Inside at Base.	Inside at Top.
165	\$3.25	12 inches.	10 inches.	6 inches.
166	3.50	12 inches.	10 inches.	6 inches.
167	3.50	12 inches.	10 inches.	6 inches.
168	4.00	12 inches.	10 inches.	6 inches.
136	5.00	14 inches.	12 inches.	8 inches.
137	4.25	14 inches.	12 inches.	8 inches.
138	4.50	14 inches.	12 inches.	8 inches.
139	4.50	14 inches.	12 inches.	8 inches.

The Tops Nos. 165, 166, 167 and 168 will fit over 6-inch, the others over 8-inch Terra Cotta Chimney Pipe.

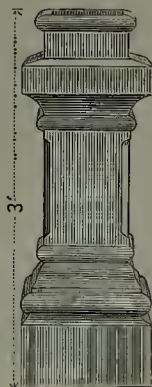
Terra Cotta Chimney Tops.



No. 172.



No. 170.



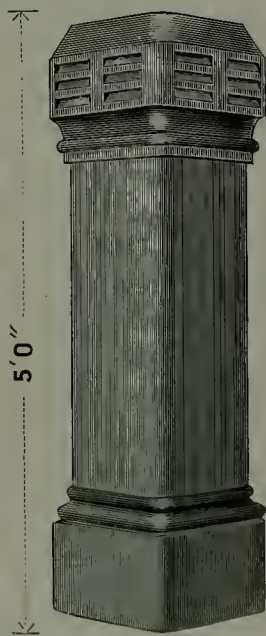
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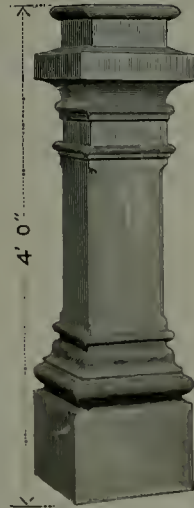
No. 150.



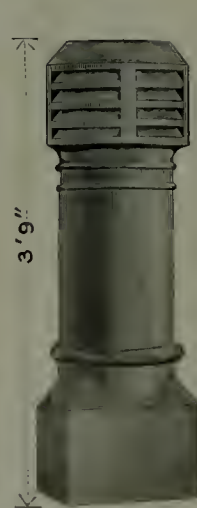
Nos. 175 to 178.



Nos. 179 to 182.



No. 149.



No. 151.

PRICE LIST.

Number.	Price.	Outside at Base.		Inside at Base.		Inside at Top.	
148	\$4.00	12	x12 inches.	10	x10 inches.	7	x 7 inches.
149	6.00	12	x12 inches.	10	x10 inches.	7	x 7 inches.
150	4.00	13	x13 inches.	11	x11 inches.	8	inches.
151	6.00	15	x15 inches.	12½	x12½ inches.	10	inches.
170	5.00	16	x16 inches.	14	x14 inches.	8	x 8 inches.
172	7.50	22	x22 inches.	20	x20 inches.	12	x12 inches.
175	5.00	12½	x12½ inches.	10½	x10½ inches.	7	x 7 inches.
176	6.00	12½	x17 inches.	10½	x15 inches.	7	x11½ inches.
177	7.50	12½	x21 inches.	10½	x19 inches.	7	x15½ inches.
178	8.00	17	x17 inches.	15	x15 inches.	11½	x11½ inches.
179	6.00	12½	x12½ inches.	10½	x10½ inches.	7	x 7 inches.
180	7.50	12½	x17 inches.	10½	x15 inches.	7	x11½ inches.
181	9.00	12½	x21 inches.	10½	x19 inches.	7	x15½ inches.
182	10.00	17	x17 inches.	15	x15 inches.	11½	x11½ inches.

NOTE.—The Tops Nos. 175 to 182 are all of the same design and will fit over the Flue Linings on page 25.

Improved Flower Pots and Saucers.



No. 218.

Our improved Flower Pots and Saucers far excel the old style in strength, uniformity of shape, etc. These pots are made of a clay much superior to that which is usually put into such goods. As will be seen in the cut, they are made so that the shoulder of one rests on the edge of the other, thus preventing the wedging of one into the other, which is the main cause of breakage in transit.

PRICE LIST.

POTS.		SAUCERS.	
2 Inch Pots.....	\$1.50 per 100	.....	.....
2½ Inch Pots.....	1.75 per 100	.....	.....
3 Inch Pots.....	2.00 per 100	3 Inch Saucers.....	\$1.50 per 100
4 Inch Pots.....	3.00 per 100	4 Inch Saucers.....	2.00 per 100
5 Inch Pots.....	4.00 per 100	5 Inch Saucers.....	2.50 per 100
6 Inch Pots.....	5.00 per 100	6 Inch Saucers.....	3.50 per 100
7 Inch Pots.....	7.00 per 100	7 Inch Saucers.....	5.00 per 100
8 Inch Pots.....	10.00 per 100	8 Inch Saucers.....	6.50 per 100
9 Inch Pots.....	15.00 per 100	9 Inch Saucers.....	8.00 per 100
10 Inch Pots.....	25.00 per 100	10 Inch Saucers.....	10.00 per 100
12 Inch Pots.....	35.00 per 100	12 Inch Saucers.....	15.00 per 100

PALM TREE POT.



No. 219.

14 Inch Pots.....	\$1.00 each	14 Inch Saucers.....	\$0.40 each
16 Inch Pots.....	2.00 each	16 Inch Saucers.....	.80 each
18 Inch Pots....	3.00 each	18 Inch Saucers.....	1.20 each
22 Inch Pots.....	5.00 each	22 Inch Saucers.....	2.00 each

PACKING AND CARTAGE EXTRA.

☛ When ordering Pots, if you also desire the Saucers, be particular to state it in your order.

DISCOUNT SHEET.....TERRA COTTA URNS AND FLOWER POTS.

Revised July 25, 1904.

Terra Cotta Urns.....	30%
Flower Pots.....	30%

Terms 60 days or 3 per cent. for cash. Packing extra.

Cartage,	(On shipments from Lincoln, Free.
	(On shipments from San Francisco or Oakland, 65¢ per ton.

STANDARD FORM NO. 64

OFFICE OF THE SECRETARY OF THE ARMY

1. Name of the person or organization to whom the award is made.....

2.

3. Title of the award.....

4. Date of the award.....

5. Description of the award.....

Terra Cotta Urns.

The Urns on this page are usually made in Red Terra Cotta, and to order only.



No. 33.

Height, 24 inches. Width at top, 24 inches.

Saucer, $13\frac{1}{2} \times 16\frac{1}{2}$ inches.

Price each..... \$10.00



No. 35.

Height, 21 inches. Width at top, 20 inches.

Price each..... \$10.00



No. 32.

Height, 29 inches. Width at top, 32 inches.

Special design. Prices given for similar work.



No. 34.

Height, 31 inches. Width at top, 30 inches.

Price each .. \$15.00

PACKING AND CARTAGE EXTRA.

Terra Cotta Vases.



Nos. 1 to 5.



No. 30.



Nos. 12 and 13.



No. 24.



No. 31.



No. 15.

PRICES WITH DIMENSIONS.

No. 1	Width, 13 inches.	Height, 12 inches.	Price, \$1.25
No. 2	Width, 15 inches.	Height, 13 inches.	Price, 1.50
No. 3	Width, 17 inches.	Height, 15 inches.	Price, 2.00
No. 4	Width, 20 inches.	Height, 18 inches.	Price, 2.50
No. 5	Width, 23 inches.	Height, 20 inches.	Price, 3.00
No. 12	Width, 13 inches.	Height, 14 inches.	Price, 1.75
No. 13	Width, 17 inches.	Height, 18 inches.	Price, 3.50
No. 15	Width, 14 inches.	Height, 21 inches.	Price, 3.00
No. 24	Width, 18 inches.	Height, 22 inches.	Price, 4.50
No. 30	Width, 36 inches.	Height, 25 inches.	Price, 15.00
No. 31	Width, 26 inches.	Height, 17 inches.	Price, 6.00

PACKING AND CARTAGE EXTRA.

DISCOUNT SHEET.....TERRA COTTA VASES.

Revised July 25, 1904.

Terra Cotta Vases..... 30%

Terms 60 days or 3 per cent. for cash. Packing extra.

Cartage, (On shipments from Lincoln, Free.
(On shipments from San Francisco or Oakland, 65¢ per ton.

THE HISTORY OF THE

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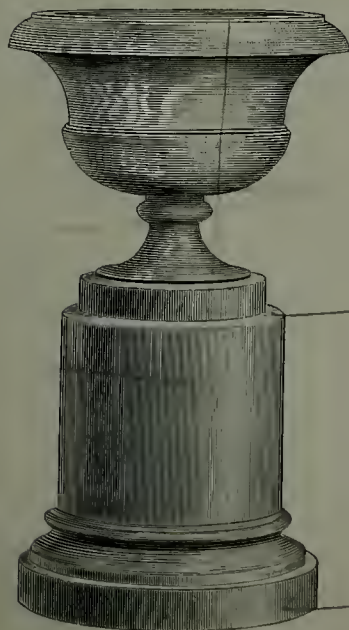
Terra Cotta Vases.



VASE No. 4.



VASE No. 27.



VASE
No. 5.



VASE
No. 23.

PEDESTAL No. 50.

PEDESTAL
No. 51.

PEDESTAL
No. 55.

PRICE LIST.

Vase No. 4.	Width, 20 inches.	Height, 18 inches.	Price, \$2 50
Vase No. 5.	Width, 23 inches.	Height, 20 inches.	Price, 3.00
Vase No. 23.	Width, 21 inches.	Height, 18 inches.	Price, 4.00
Vase No. 27.	Width, 27 inches.	Height, 28 inches.	Price, 15.00
Pedestal No. 50.	Width, 16 inches.	Height, 15 inches.	Price, 2.50
Pedestal No. 51.	Width, 21 inches.	Height, 20 inches.	Price, 4.00
Pedestal No. 55.	Width, 16 inches.	Height, 20 inches.	Price, 4.00

PACKING AND CARTAGE EXTRA.

Hard and Porous Hollow Tile.



FIRE-PROOFING, within the past twenty-five years, has advanced rapidly to a position of great importance in the construction and protection of our prominent buildings, and few who can recall the general apathy toward any innovation upon the stereotyped methods of constructing buildings a few years since, can realize the encouraging progress made in the introduction and practical application of fire-proofing. In fact, a building erected at the present time, of any size or importance, is an exception if some method of fire protection is not incorporated in its construction. This change, marking as it does an era in building, has not been spasmodic, but rather the result of constant demand, produced, to a certain extent, by the efforts put forth by the promoters of non-combustible methods of building, but largely by the desire among careful, thinking men who contemplate the erection of beautiful buildings, to make them not only ornamental, but thorough and substantial as well.

The losses by fire during the last decade have been almost unprecedented in the history of the West, and this has contributed in a marked degree to the demand for protection against the arch enemy, *fire*, not by carrying a heavy line of insurance (insurance will not prevent a building from burning), but rather in the only real protection to the interest of capital, *i. e.*, in so erecting buildings that loss by fire is made impossible, thus obviating a heavy annual outlay for insurance premiums.

Can a Building be made Fire-Proof? This is a question asked by thousands—and generally doubted even at this day. We maintain that a building can not only be erected fire-proof, but that when so designed, is necessarily constructed of material proof against the action of fire, and at the same time much more substantial and time-enduring than a combustible form of structure.

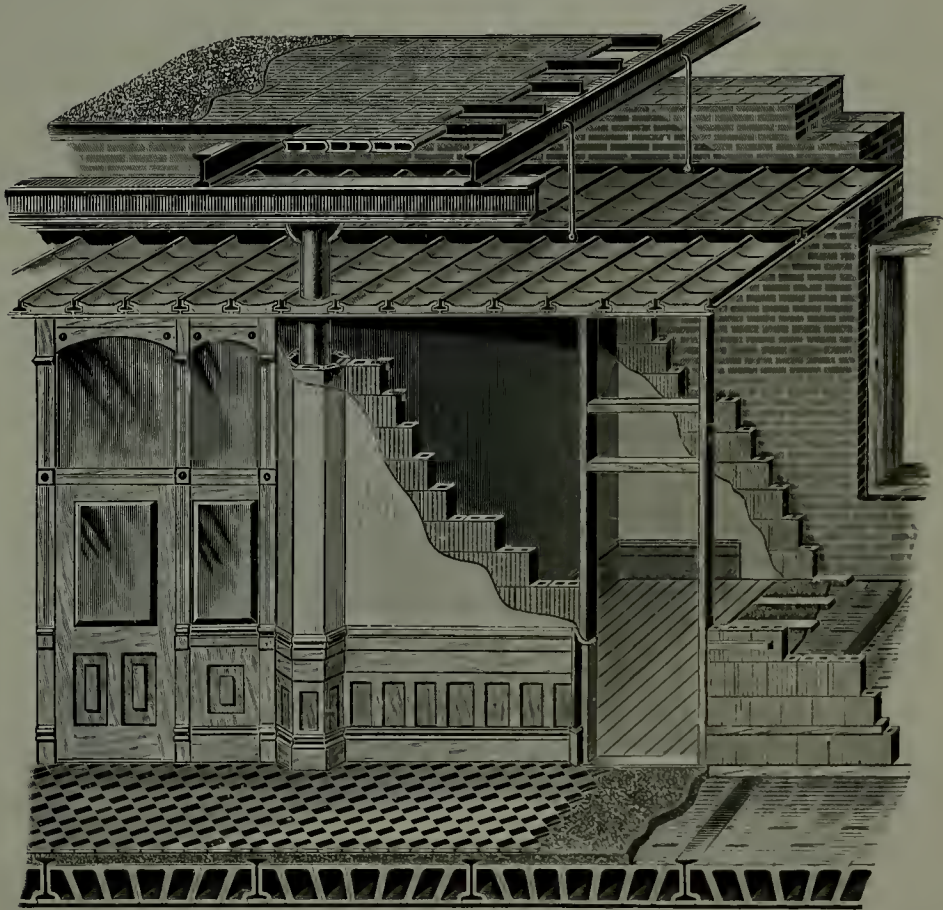
What constitutes a Fire-Proof Building? Our reply is, that the term *fire-proof*, when applied to a building, contemplates that the edifice, in all its *structural* parts, should be formed entirely of non-combustible materials, meaning thereby that all the interior and exterior of the structure should be built of material calculated to successfully resist the injurious action of extreme heat. Beginning with a substantial foundation, the walls of a "Thoroughly Fire-Proof Building" should be built either of brick, terra cotta or stone. The great Chicago fire of 1871 demonstrated conclusively that the only building material that successfully withstood the fire was "brick"; hence we say, construct your building of good brick as a base, and beautify it as taste may dictate, with terra cotta, etc.

After the walls, the next factor of importance is the floors. In all cases they should be built with a combination of iron I-beams and non-combustible filling, covered over with cement concrete.

The partitions for dividing the various floors into rooms, corridors, etc., should be built of absolutely non-combustible material, and where the roof and upper ceiling of the building are treated similarly, all danger of spread of fire in such a building is made impossible.

It is often observed by skeptics that the wooden flooring, base, wainscot, architraves, doors, etc., that are put into a fire-proof building after the plastering has been applied is sufficient to burn the structure. This is most emphatically a misrepresentation, and can only be accepted as truth by novices, for the reason that so long as "fire" can be confined to its prescribed limits, as in the case of furnaces, boilers, fireplaces, etc., it becomes an easy agent to control; but when afforded any opportunity by flagrant neglect in building, it is a matter of time only when the best structure, built of combustible materials, will be reduced to cinders; therefore, we maintain that when the *structural* portions of the building are non-combustible, the contents can be what they may; and in case fire does attack them, the loss is merely nominal, as the fire cannot spread from the room of its inception.

The use of various materials has been introduced for the purpose of fire-proof protection for buildings, all more or less effective. The general, and perhaps to-day the oldest modern system for floor construction, has been the brick arch between iron beams; then have followed the corrugated iron and concrete arch, lime of teil plaster arch, and numerous others, including the Hollow Tile flat arch. All these systems have their advantages, and consequently any of them are much to be preferred to a wooden form of construction, but they also have disadvantages when compared one with the other.



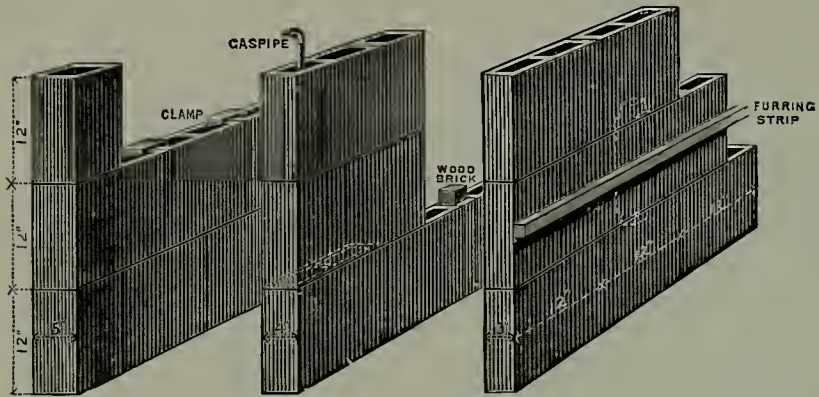
Interior View of Fire-Proof Building.

The question, then, is to determine which method of construction is the best and has the fewest defects.

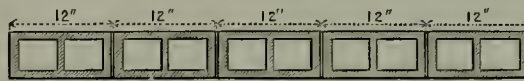
To this end we have devoted fifteen years' practical experience, and have found that of all materials yet produced for interior fire-proof construction, fire-clay Hollow Tile Arches and Partitions take precedence over every known material and method.

The view above represents the interior of an *ideal fire-proof building*, and in presenting it a positive reply is given to those who may doubt the possibility of absolute protection from fire in a building.

HOLLOW TILE PARTITIONS.

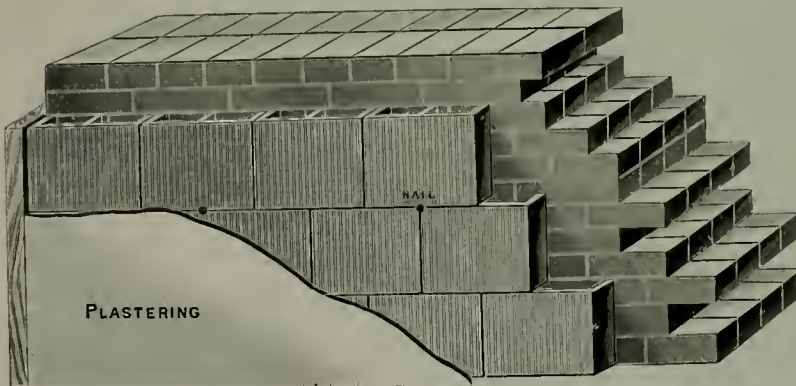


We make 2-inch, 3-inch, 4-inch, 5-inch and 6-inch Hollow Tile for Partitions. The 3-inch and 4-inch are mostly used.



Plan View of Partition.

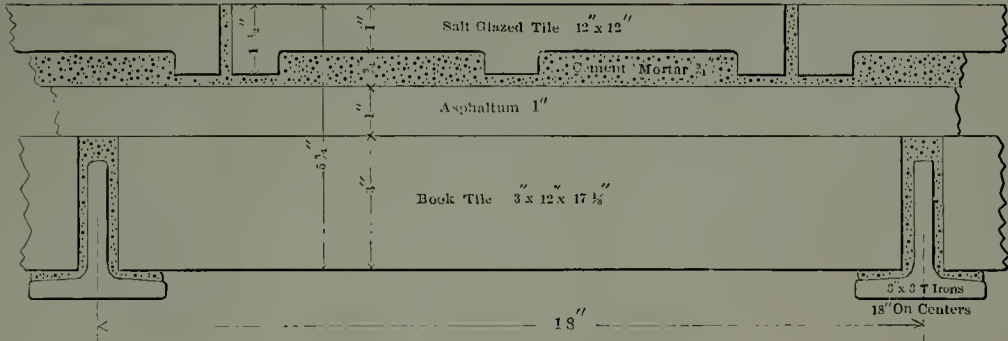
FURRING TILE.



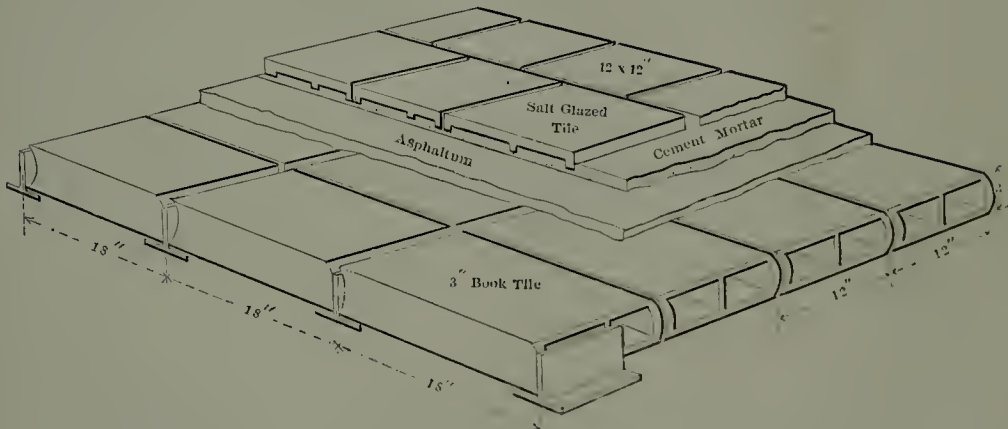
We make 1-inch, 1½-inch and 2-inch Tile for furring brick walls. The 1½-inch is mostly used.

HOLLOW TILE ROOFING.

SECTION.

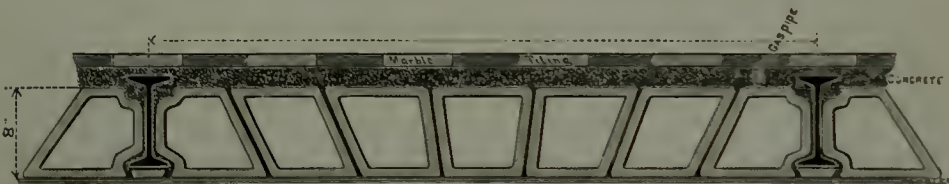


ISOMETRIC VIEW.



This is the most substantial and durable sytem of roof construction for fire-proof buildings devised. It has been successfully used on the roofs of the following fire-proof buildings in San Francisco, viz.: The Spring Valley Water Company's Building; also, the Union Trust and Mutual Life Insurance Companies' Buildings.

STANDARD HOLLOW TILE FLOOR ARCHES.



We make this shape of Arch to fit 6-inch, 7-inch, 8-inch and 9-inch I-beams

The 6-inch and 7-inch for spans of 5 feet are safe for live loads of 250 pounds per square foot.

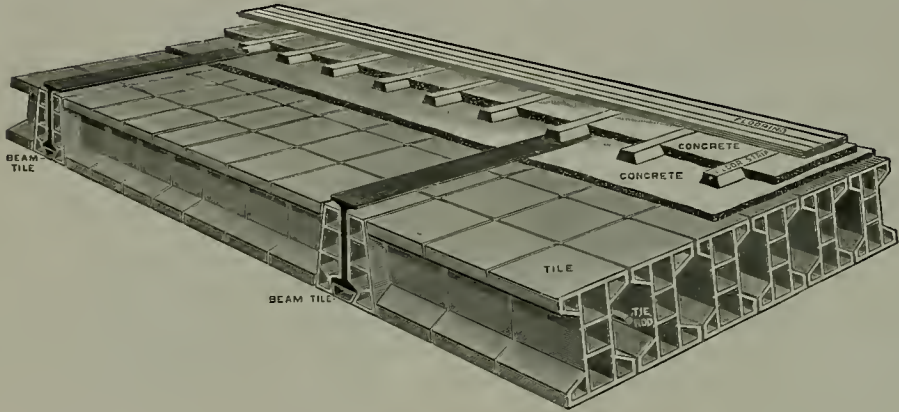
The 8-inch for spans of 5 feet 6 inches are safe for live loads of 250 pounds per square foot.

The 9-inch for spans of 6 feet are safe for live loads of 250 pounds per square foot.

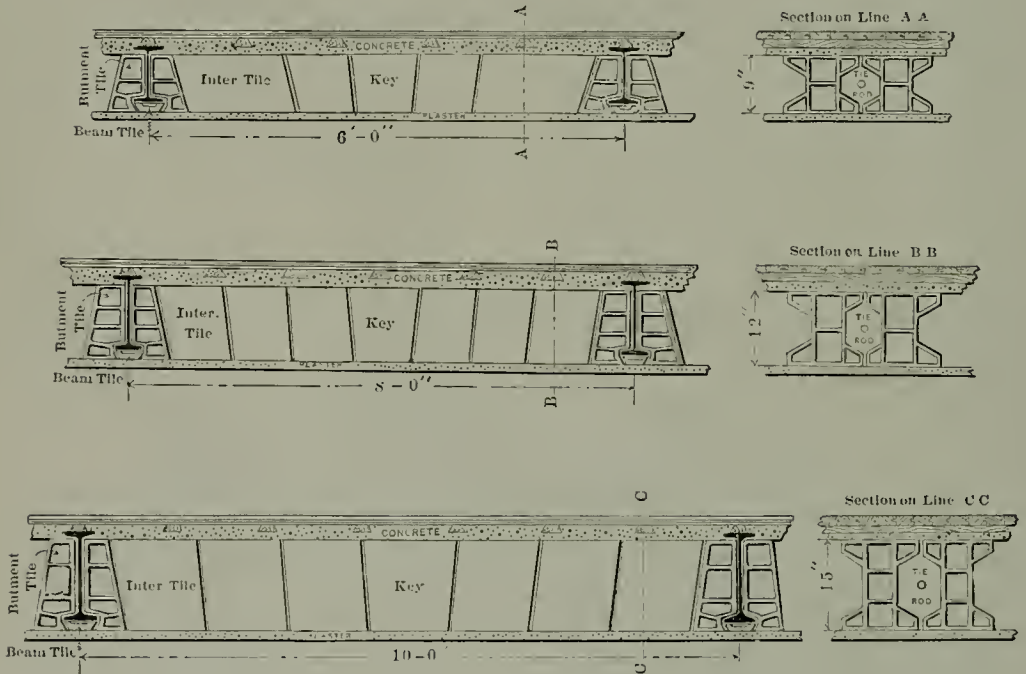
END PRESSURE HOLLOW TILE FLOOR ARCHES.

Patented July 21, 1891.

ISOMETRIC VIEW.



SECTIONS.



We make these arches in 8, 9, 10, 12 and 15-inch depths. They are 25 per cent. lighter and much stronger than the old style or standard arches, and can be adapted to any span.

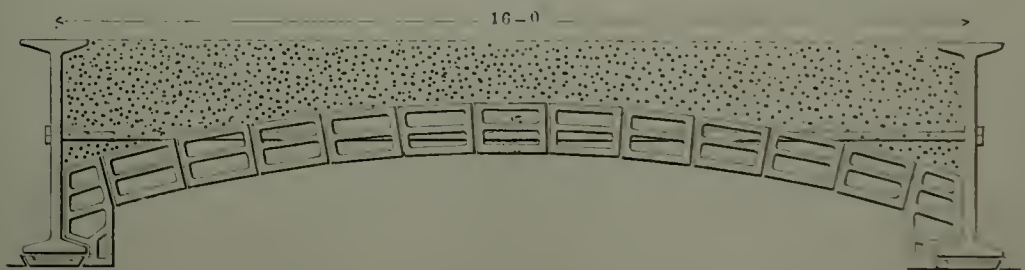
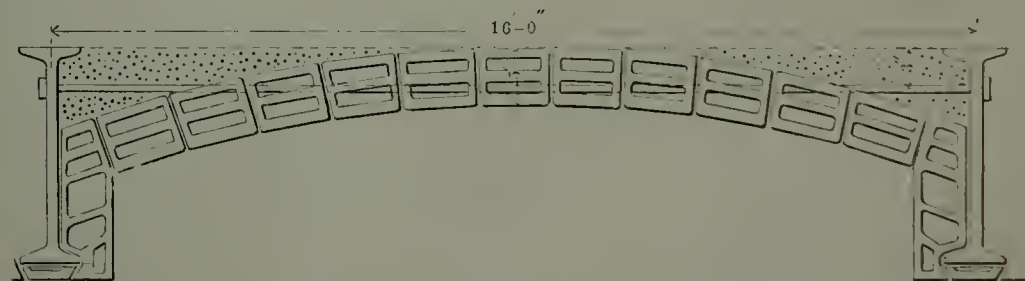
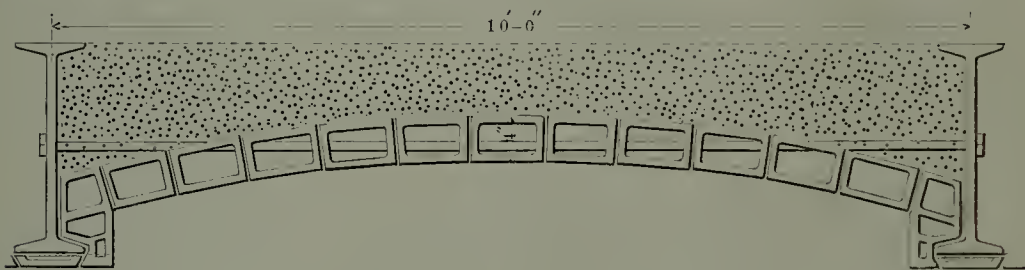
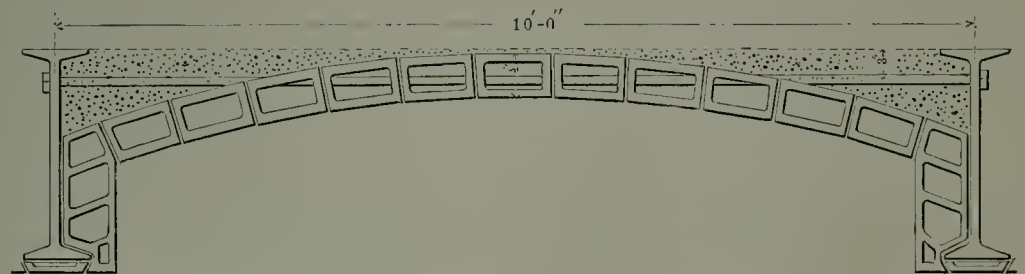
SEGMENTAL HOLLOW TILE FLOOR ARCHES.

The following arches of the spans shown are safe for a live load of 250 pounds per square foot, with a safety factor of four.

The spring line and rise can be varied to suit any span or depth of beam.

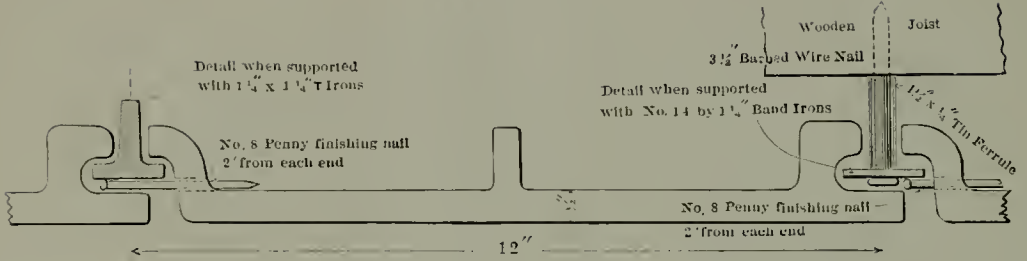
In 1895 we set in place in the Parrott Building, this city, 225,000 square feet of the 4-inch Segmental Arch between 15-inch I-beams, with the tie rods placed three inches below the top flanges.

After a test had been made, it was clearly demonstrated that the arches were as safe and as strong as they would have been had the tie rods been placed midway between the top and bottom flanges of the beams.

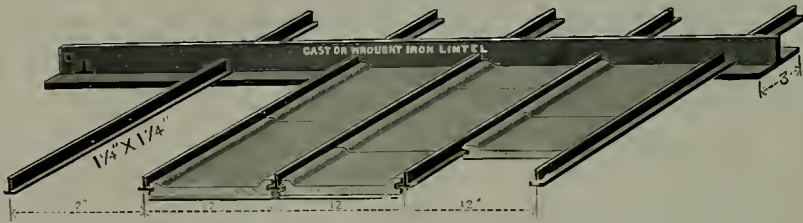


CEILING TILE.

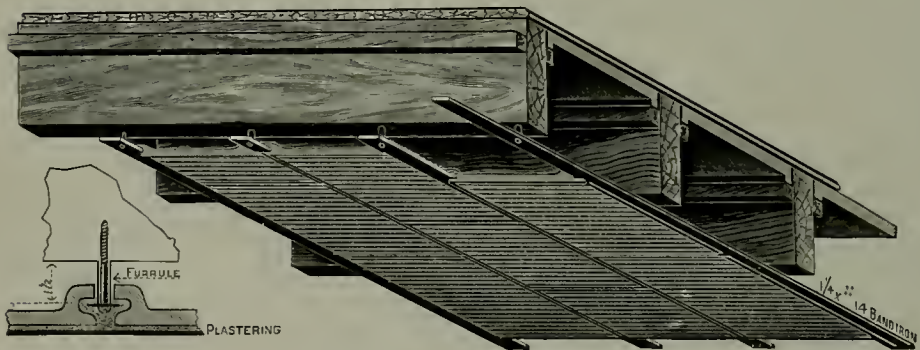
SECTION.



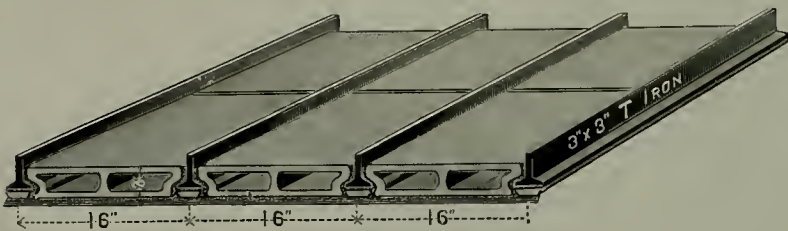
ISOMETRIC VIEWS.



1/2 x 12 x 12 inch Tile, suspended on 1 1/4 x 1 1/4 T-Irons.



1/2 x 12 x 12 inch Tile, suspended from Wood Joists.



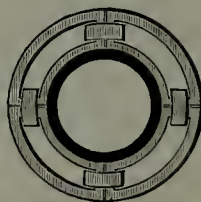
3 x 12 x 15 1/4 inch Tile, suspended on 3 x 3 T-Irons.

TILE COLUMN CASING.

SOLID.



HOLLOW.



We make these for columns of any diameter; also, Hollow Tile Casing for square columns

HOLLOW TILE FIRE PROOFING.

The following is a list of buildings erected during the past few years, for which we have furnished from \$5,000 to \$125,000 worth of Hollow Tile Fire Proofing:

BUILDINGS.	LOCATION.	ARCHITECTS.
Crocker	San Francisco	A. Page Brown.
City Hall Dome	San Francisco	Shea & Shea.
French Hospital	San Francisco	Mooser & Goustiaux.
German Savings and Loan Society	San Francisco	Kenitzer & Kollofrath.
Hobart	San Francisco	Percy & Hamilton.
Mr. Wm. G. Irwin Residence	San Francisco	Reid Brothers.
Mills	San Francisco	Burnham & Root.
Mutual Life Insurance Co.	San Francisco	Clinton Day.
Parrott	San Francisco	Pissis & Moore.
Claus Spreckels	San Francisco	Reid Brothers.
Mr. Claus Spreckels Residence	San Francisco	Reid Brothers.
Emma Spreckels	San Francisco	Reid Brothers.
San Francisco Chronicle	San Francisco	Burnham & Root.
San Francisco Examiner	San Francisco	A. C. Schweinfurth.
Spring Valley Water Co.	San Francisco	Clinton Day.
Union Trust Co.	San Francisco	Clinton Day.
United States Post Office.	San Francisco	U. S. Supervising Architect.
Los Angeles County Court House.	Los Angeles, Cal.	Curlett, Eisen & Cuthbertson.
City Hall	Los Angeles, Cal.	Caukin & Hass.
Sacramento Electric Light and Power Co.	Sacramento, Cal.	N. L. Mayo.
United States Post Office	Sacramento, Cal.	U. S. Supervising Architect.
United States Post Office	San Jose, Cal.	U. S. Supervising Architect.
Fresno County Hall Records	Fresno, Cal.	J. M. Curtis.
Placer County Court House	Auburn, Cal.	J. M. Curtis.
Kern County Court House	Bakersfield, Cal.	B. McDougall & Sons.
San Diego County Court House	San Diego, Cal.	Comstock & Trotsche.
Santa Cruz County Court House	Santa Cruz, Cal.	N. A. Comstock.
Free Library	Portland, Ore.	Whidden & Lewis.
Portland City Hall	Portland, Ore.	Whidden & Lewis.
United States Customs House	Portland, Ore.	U. S. Supervising Architect.
King County Court House	Seattle, Wash.	W. A. Ritchie.
King County Alms House and Hospital	Seattle, Wash.	W. A. Ritchie.
Fidelity Trust Co.	Tacoma, Wash.	Burnham & Root.
Jefferson County Court House	Port Townsend, Wash.	W. A. Ritchie.
Thurston County Court House	Olympia, Wash.	W. A. Ritchie.

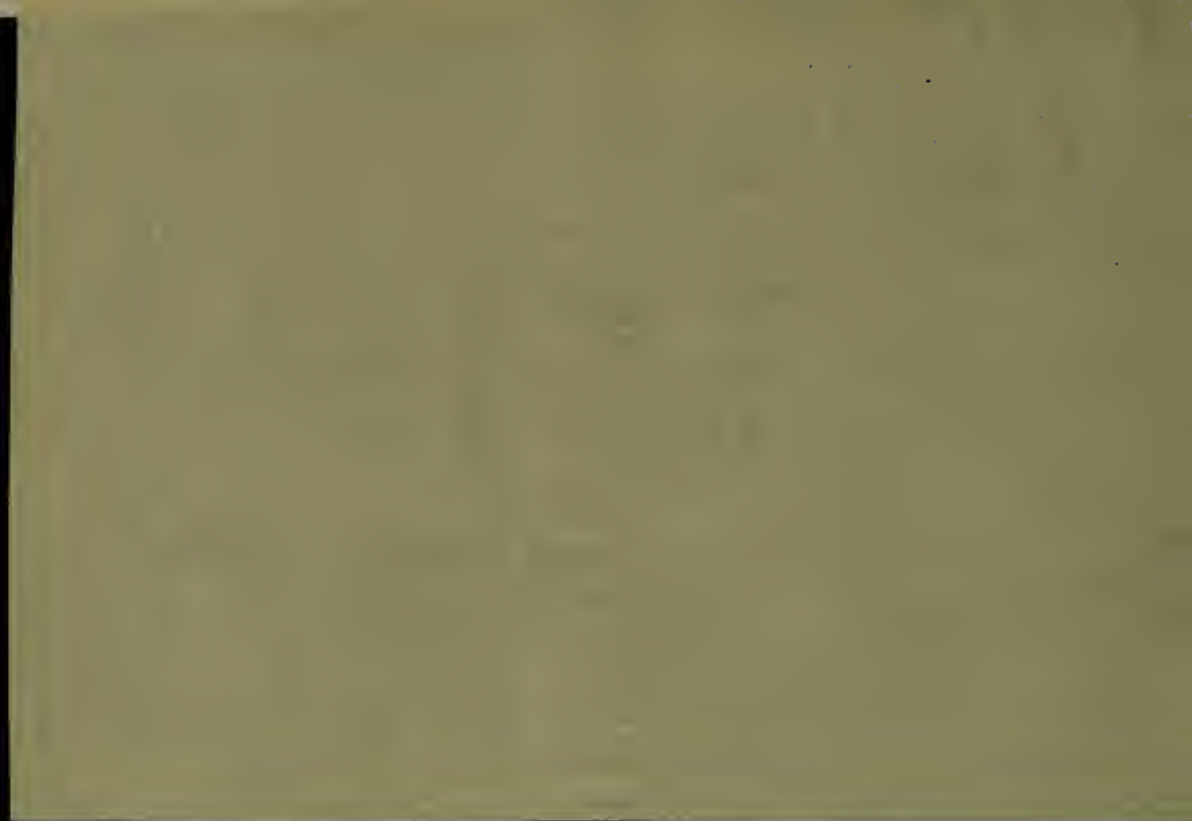
Sept. 21/04

Arch Fire Bricks

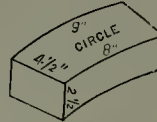
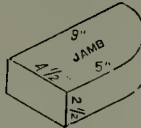
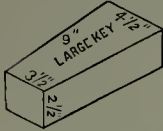
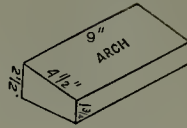
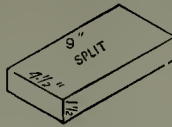
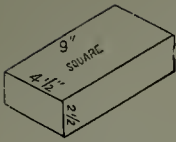
Dix. plunger plates for repressing arch fire bricks on Richardson repress marked viz:

#2. Size - turned small end 2" thick. These run to a circle 29" inside diameter.

#3. Size - turned small end $1\frac{3}{4}$ " thick. These run to a circle 20" inside diameter.



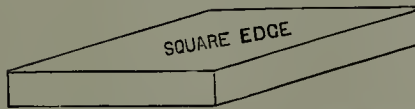
FIRE BRICK.



Square, per 1000, \$* 31.00
 Split, per 1000, 30.00
 Arch, per 1000, 40.00

Key, per 1000, \$* 40.00
 Jamb, per 1000, 40.00
 Circle, per 1000, 40.00

FIRE TILE.



Dimensions.	Shape.	Price Each.	Dimensions.	Shape.	Price Each.
8x 8x2 inches.	Square edge.	\$.20	18x 6x6 inches.	Square edge.	\$.85
10x10x2 inches.	Square edge.	.30	24x 6x6 inches.	Square edge.	1.00
12x12x2 inches.	Square edge.	.40	24x12x2 inches.	Square edge.	1.00
14x14x2 inches.	Square edge.	.65	24x12x3 inches.	Square edge.	1.25
16x16x2 inches.	Square edge.	.85	20x15x3 inches.	Square edge.	1.50
18x18x2 inches.	Square edge.	1.00	24x15x3 inches.	Square edge.	2.00
12x 6x2 inches.	Square edge.	.20	28x12x3 inches.	Square edge.	1.75
14x 6x2 inches.	Square edge.	.25	28x15x3 inches.	Square edge.	2.00
16x 6x2 inches.	Square edge.	.30	30x15x3 inches.	Square edge.	2.25
18x 6x2 inches.	Square edge.	.35	36x15x3 inches.	Square edge.	2.50



Dimensions.	Shape.	Price Each.	Dimensions.	Shape.	Price Each.
24x12x3 inches.	Flanged edge.	\$1.50	28x15x3 inches.	Flanged edge.	\$2.25
24x15x3 inches.	Flanged edge.	2.25	30x15x3 inches.	Flanged edge.	2.50
28x12x3 inches.	Flanged edge.	2.00	36x15x3 inches.	Flanged edge.	2.75

Any size or shape can be made to order at short notice

FIRE CLAY.

Carloads, Crude, in bulk, per ton 5.30
 Carloads, Finely Ground, in sacks, per ton 7.00
 Less than carloads, per sack of 200 lbs. 1.50

FIRE BRICK DUST.

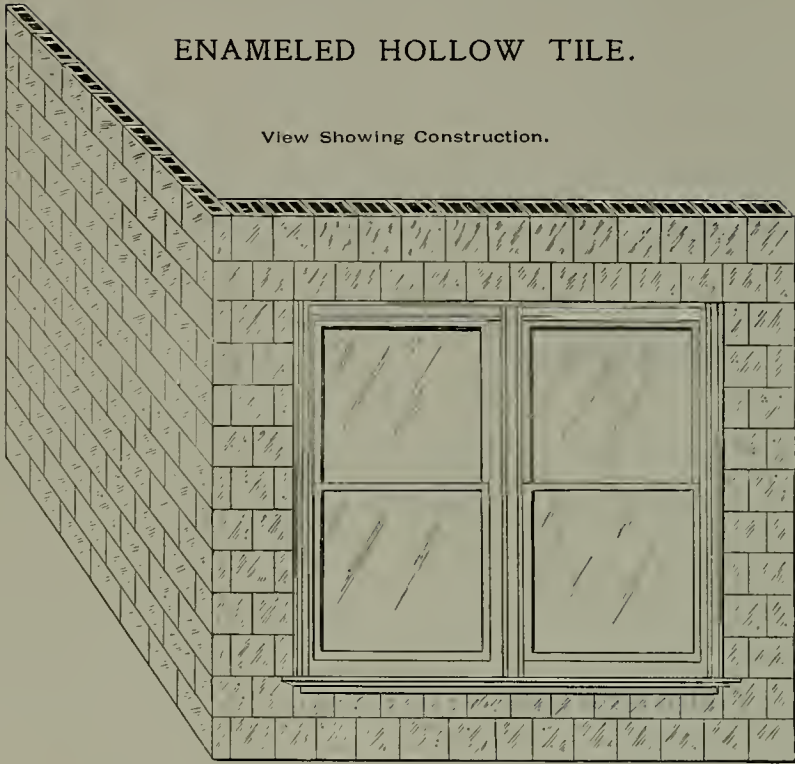
Carloads, in sacks, per ton 5.30
 Less than carloads, per sack of 200 lbs. 1.50

When Ground Clay and Brick Dust is furnished in carload lots, we charge the market price for the sacks, unless they are returned to us in good condition. When requesting prices, please state quantity required.

* Price according to quantity and point of delivery.

ENAMELED HOLLOW TILE.

View Showing Construction.



We make this Hollow Enameled Tile 4 and 6 inches thick and usually 12 inches square, and weighing 20 pounds per square foot for the 4-inch and 25 pounds per square foot for the 6-inch.

Owing to the lightness of the tile, also its *glazed, non-absorbent surface and fire-proof qualities*, it is especially adapted for walls of light courts in large buildings. Their lightness permits the erection to start on I-beams at any story, and for this reason their use is especially desirable.

ENAMELED BRICK.

Enameled Brick ordered "by mistake" or in excess of requirements will not be taken back.

We carry in stock Cream-White Enameled Brick, American size, $8\frac{1}{2} \times 4\frac{1}{4} \times 2\frac{3}{8}$ inches in the following shapes:

PRICE LIST.

	Per 1000.		Per 1000.
Stretchers, enameled on one face.....	\$ 85	Shape No. 75, enameled on one face and one end...	\$200
Headers, Single, " one end.....	80	Shape No. 76, " one face and one end...	200
Headers, Double, " two ends.....	90	Shape No. 77, " one face and two ends...	200
Quoins, Square, " one face and one end .	100	Shape No. 101, " one face	125
Returns, " one face and two ends	150	Shape No. 102, " one end	100
Shape No. 58, " one face and one end .	110	Shape No. 103, " one face and one end. .	200
Shape No. 59, " one face and one end .	110		

For Shapes Nos. 58 to 103, see pages 49, 52 and 53. We can make almost any size or shape to order.

For Grays, Browns, Blues, Greens or Blacks, add \$20.00 per 1000.

In order to insure safe transportation, these brick, even if shipped in carloads, ought to be crated. This will cost \$10.00 per 1000 additional; but if the crates are returned to us in good condition, with the charges prepaid, we will allow a rebate of \$7.50 per 1000.

Transportation companies will not receive enameled brick in less than carloads, unless they are crated.

Empty crates can be returned to the shipping point at 15 per cent. of the tariff.

5500 shipped loose or 5000 crated will make a 15-ton carload.

Pressed Brick.

Moulded or Ornamental Bricks ordered "by mistake" or in excess of requirements will not be taken back.

PRICE LIST

For First Quality, Buff Shades, Nos. 35, 36, 38, 40, 42, 45; and Gray Shade No. 60.

PLAIN BRICK.

Standard Shape.	Size, $8\frac{1}{4} \times 4 \times 2\frac{3}{8}$ inches	. . . . .	\$40.00 per 1000.	5500 to a 15-ton carload
Roman	" $8\frac{1}{4} \times 4 \times 1\frac{3}{4}$ "	. . . . .	35.00	" "
Roman	" $11\frac{3}{4} \times 3\frac{7}{8} \times 1\frac{3}{4}$ "	. . . . .	45.00	" "

MOULDED BRICK.

Our Moulded Brick are of the following dimensions: Standard Size, $8\frac{1}{4} \times 4 \times 2\frac{3}{8}$ inches; Roman Size, $8\frac{1}{4} \times 4 \times 1\frac{3}{4}$ inches. Special shapes made to order.

Nos. 40, 41, 42, 50, 53, 55, 56, 58, 59, 65, 70, 71, 77, 80, 81, 82, 90, 91	. . . . .	} . . . . .	\$ 65.00 per 1000
Nos. 92, 95, 96, 101, 102, 104, 105, 107, 108, 111, 112, 114, 121	. . . . .	} . . . . .	" "
Mitre Brick, Nos. 75, 76, 83, 103, 106, 109, 113, 115	. . . . .		85.00
Semicircle Arch Brick, No. 200, Plain Reveals	. . . . .		65.00
" " " " Moulded Reveals	. . . . .		75.00
Flat Arch Brick, No. 202, Plain Reveals	. . . . .		75.00
" " " " Moulded Reveals		100.00

ORNAMENTAL BRICK.

Nos. 140, 142, 144, 146	\$125.00 per 1000
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MANTEL BRICK.

For these add to our prices the cost of crating, also \$5.00 per 1000 for selected brick.

CRATING.

Our prices are based on shipping brick loose. If crated, they will cost an additional \$7.50 per 1000, but if the crates are returned to us in good condition, with all charges prepaid, then we will allow a rebate of \$5.00 per 1000.

Transportation companies will not receive pressed brick in less than carloads, unless they are crated. Empty crates can be returned to the station shipped from at 15 per cent. of the tariff.

DELIVERY.

CARLOADS. We will deliver carloads at the above prices on the cars at any of the following places, to wit:

Auburn,	Hanford,	Napa,	Sacramento,	Stockton,
Benicia,	Hollister,	Oakdale,	Salinas,	St. Helena,
Calistoga,	Marysville,	Oroville,	San Jose,	South Vallejo,
Chico,	Menlo Park,	Palo Alto,	San Mateo,	Suisun,
Fresno,	Merced,	Petaluma,	San Rafael,	Watsonville,
Gilroy,	Modesto,	Redwood City,	Santa Cruz,	Woodland,
	Monterey,	Red Bluff,	Santa Rosa,	

LESS THAN CARLOADS. We will deliver free 1000 or more at any point in San Francisco, Oakland, Alameda or Berkeley, or any quantity in our San Francisco or Oakland Yards, or on the cars at Lincoln, California.

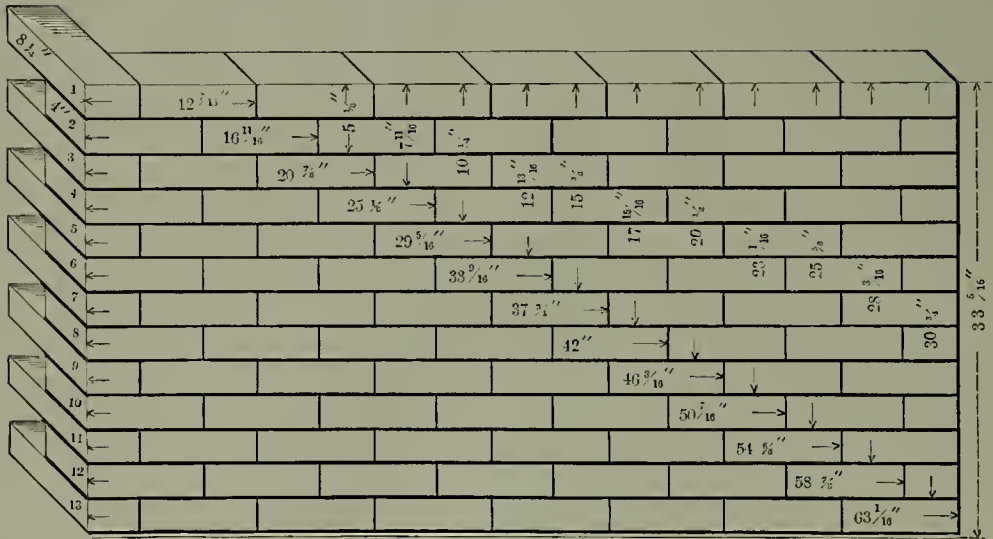
NOTICE.

Should a large number of any particular shape or shade of brick be required, please place your orders about 60 days before needed. This will enable us to make prompt delivery. See stock shapes on the following pages.

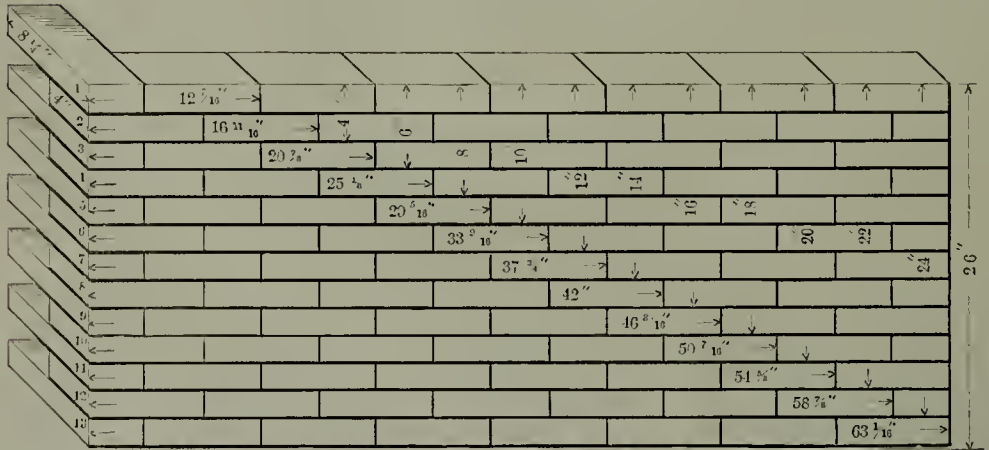
PRESSED BRICK.

Isometric Views, showing average coursing and length of our Buff Pressed Brick.

STANDARD SHAPE.

Size— $8\frac{1}{4} \times 4 \times 2\frac{3}{8}$ inches.Laid with $\frac{3}{16}$ -inch bed and $\frac{1}{8}$ -inch head mortar joints.

ROMAN SHAPE.

Size— $8\frac{1}{4} \times 4 \times 1\frac{3}{4}$ inches.Laid with $\frac{1}{4}$ -inch bed and $\frac{1}{8}$ -inch head mortar joints.

ROMAN SHAPE.

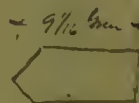
Size— $11\frac{3}{4} \times 3\frac{7}{8} \times 1\frac{3}{4}$ inches.Laid with $\frac{1}{4}$ -inch bed and $\frac{1}{8}$ -inch head mortar joints.

This shape varies in length from $11\frac{3}{4}$ to 12 inches. Three headers with the mortar joints will equal one stretcher. We advise the use of our Roman shape size $8\frac{1}{4} \times 4 \times 1\frac{3}{4}$ in piers and mantels on account of their bonding better than the long brick. When used in mantels, lay with $\frac{1}{8}$ -inch bed and head joints.

Have the following Dies for Bricks ^{Ang 1/32}
not illustrated

Whittaker Press

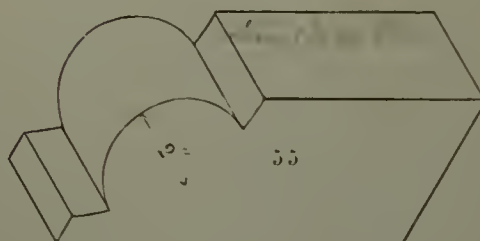
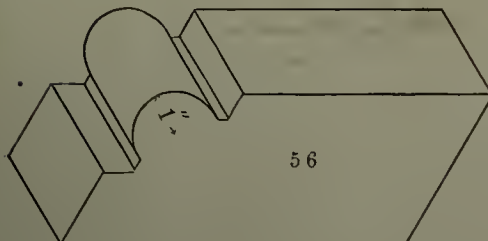
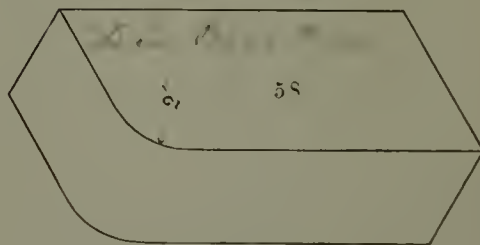
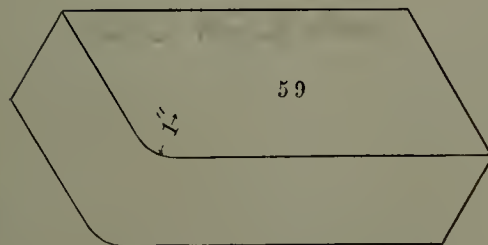
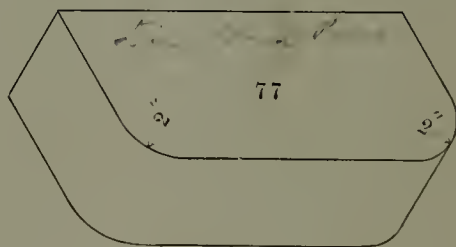
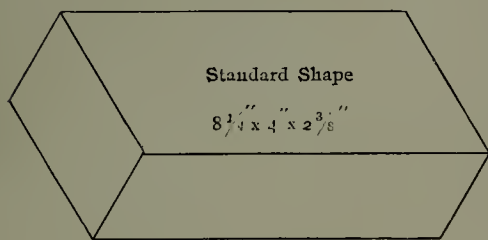
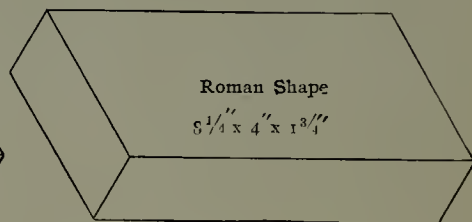
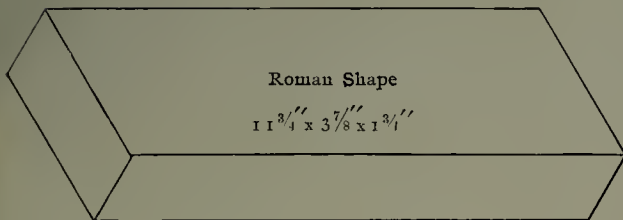
One (1) 45° angle brick standard size





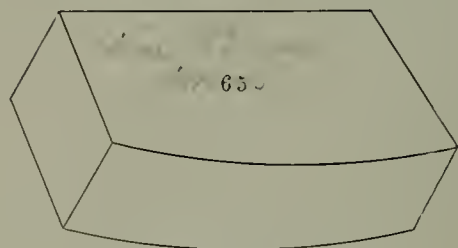
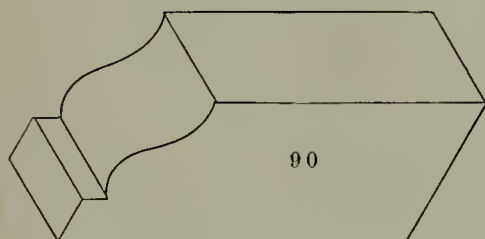
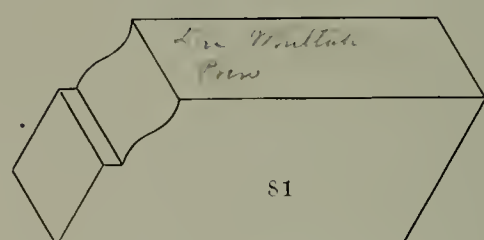
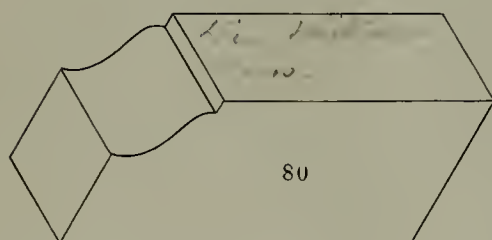
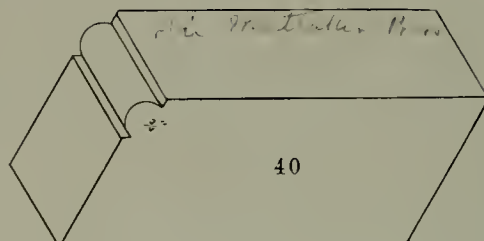
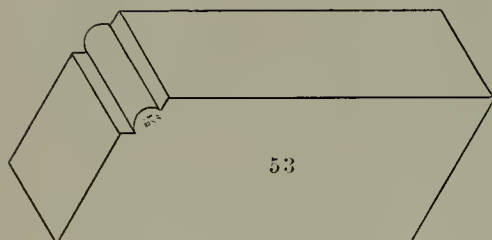
PRESSED BRICK.

Scale $\frac{1}{4}$ full size.

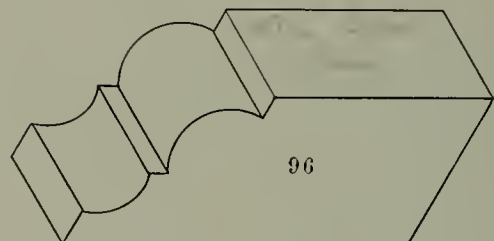
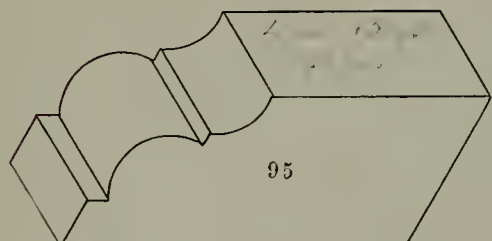


All the shapes on this page are made $1\frac{1}{4}$ or $2\frac{1}{4}$ inches thick.

PRESSED BRICK.

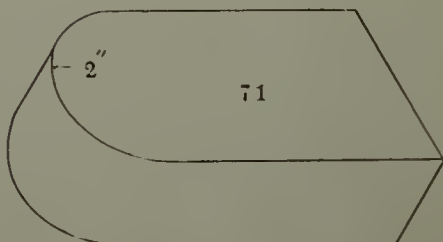
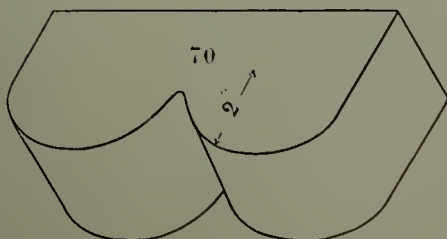
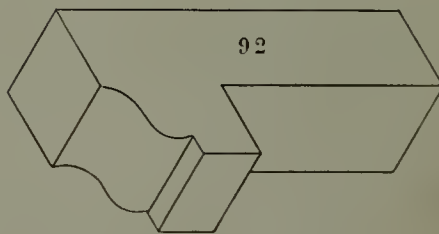
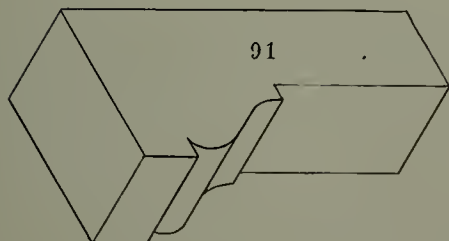
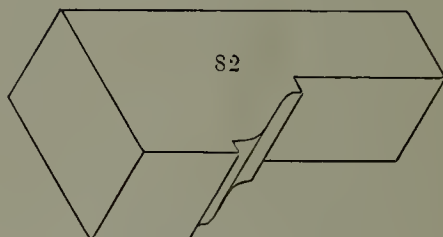
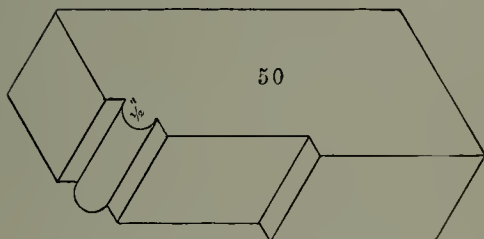
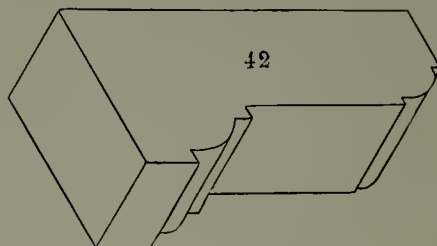
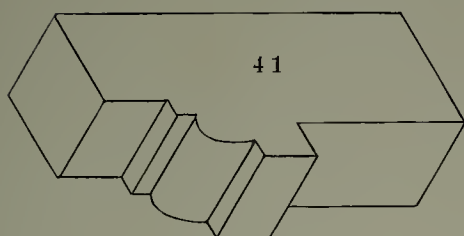
Scale $\frac{1}{4}$ full size.

Any Radius from 3 ft. 0 in. up.

All the shapes on this page are made $1\frac{3}{4}$ or $2\frac{3}{8}$ inches thick.

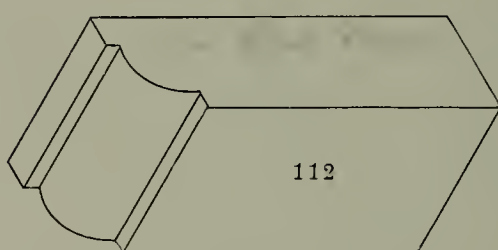
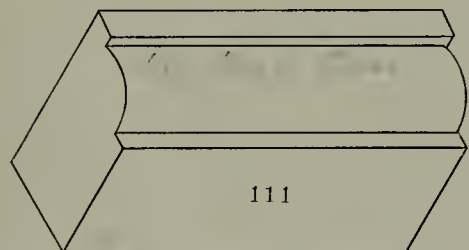
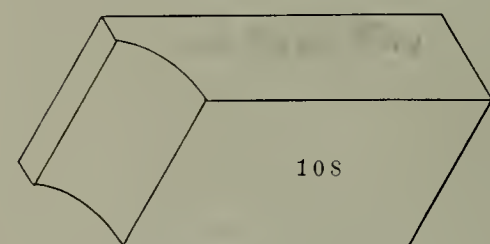
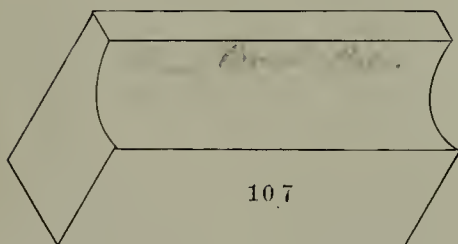
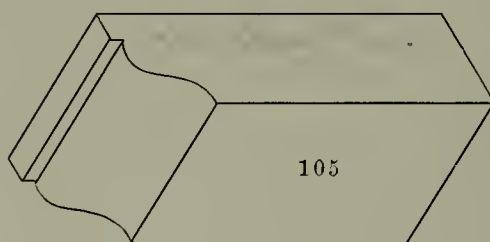
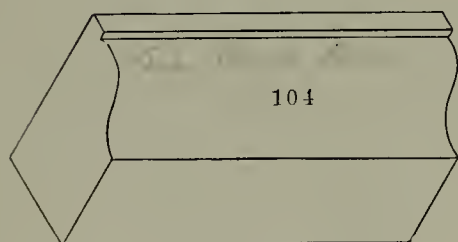
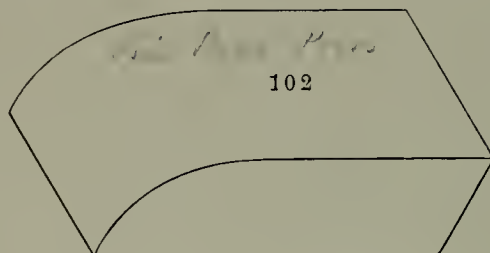
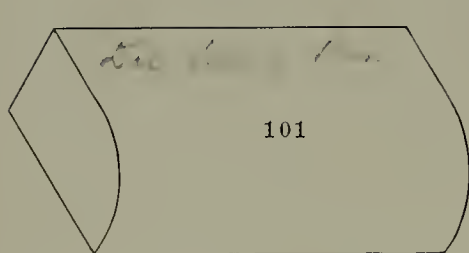
PRESSED BRICK.

Scale $\frac{1}{4}$ full size.



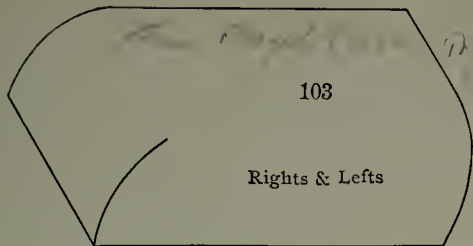
All the shapes on this page are made $1\frac{1}{4}$ or $2\frac{3}{4}$ inches thick.

PRESSED BRICK.

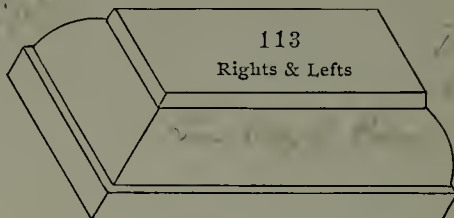
Scale $\frac{1}{4}$ full size.All the shapes on this page are made $2\frac{3}{8}$ inches thick.

PRESSED BRICK.

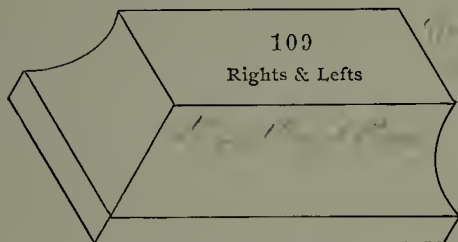
Scale $\frac{1}{4}$ full size.



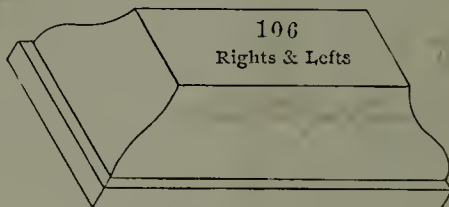
Mitre for Nos. 101-102.



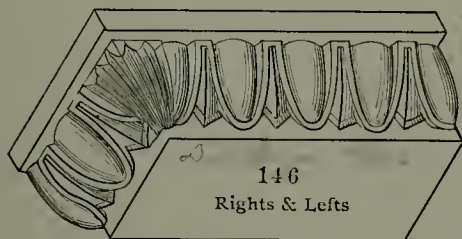
Mitre for Nos. 111-112.



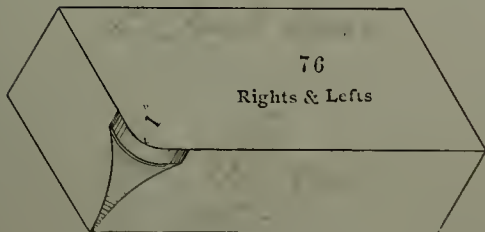
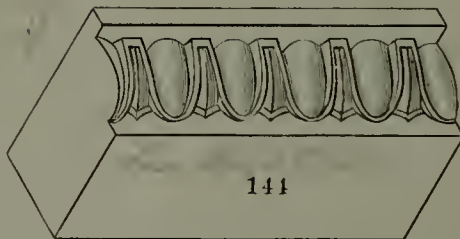
Mitre for Nos. 107-108.



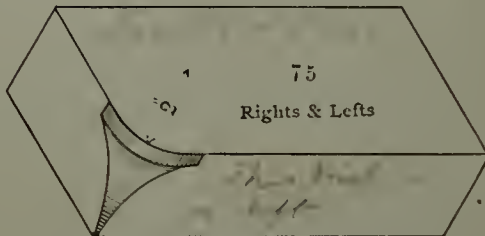
Mitre for Nos. 104-105.



Mitre for No. 144.



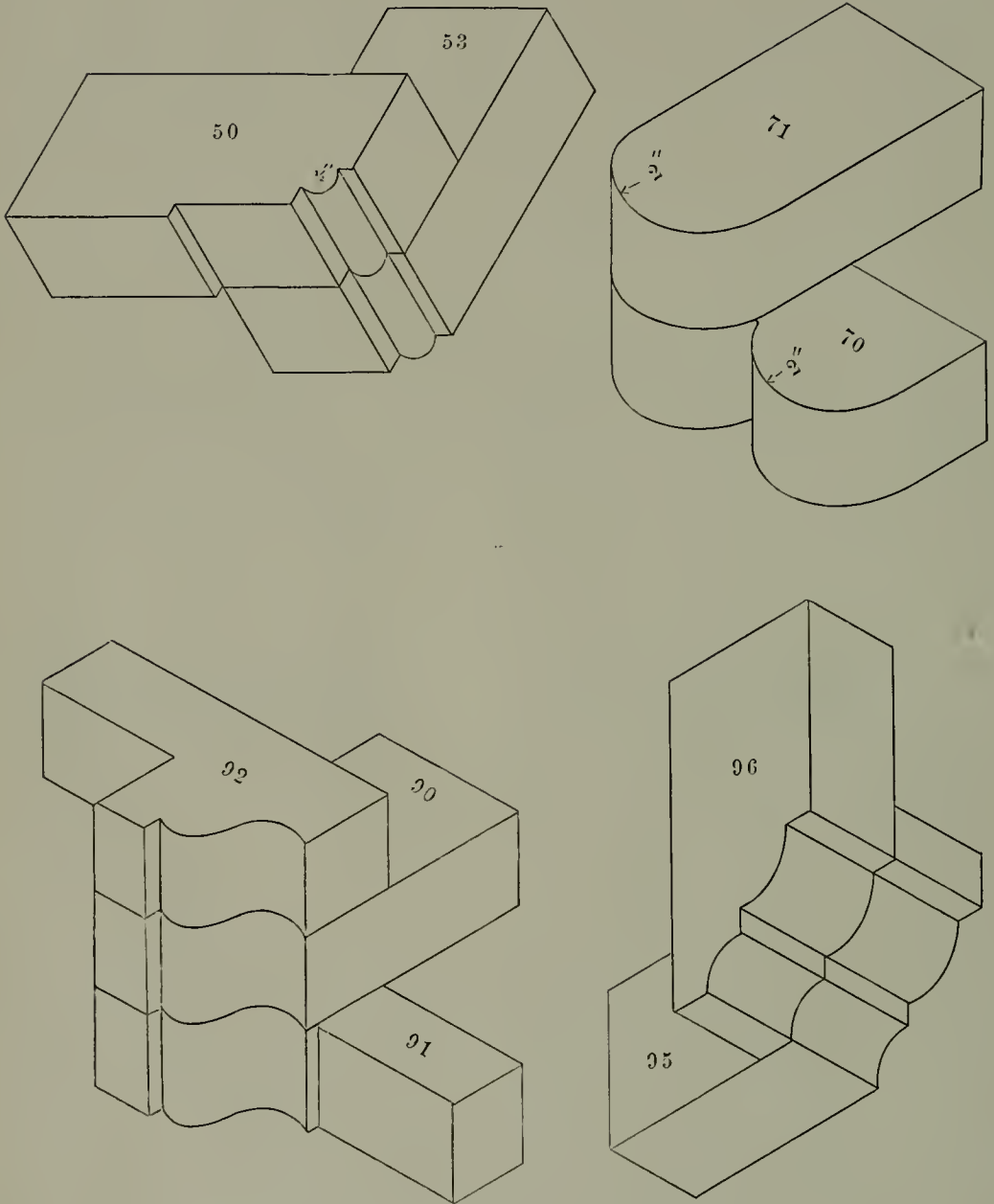
Starter for No. 59.



Starter for No. 58.

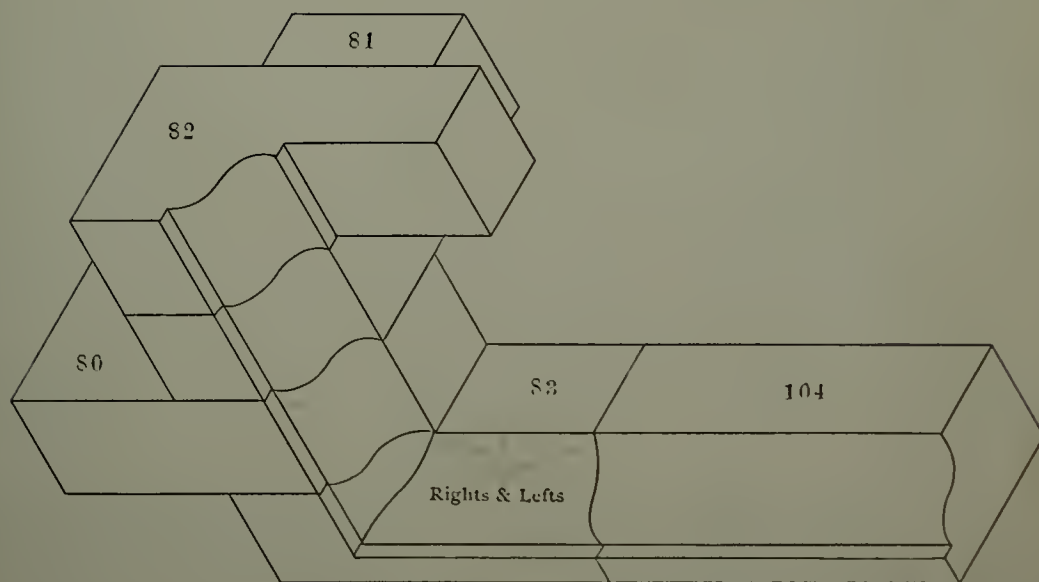
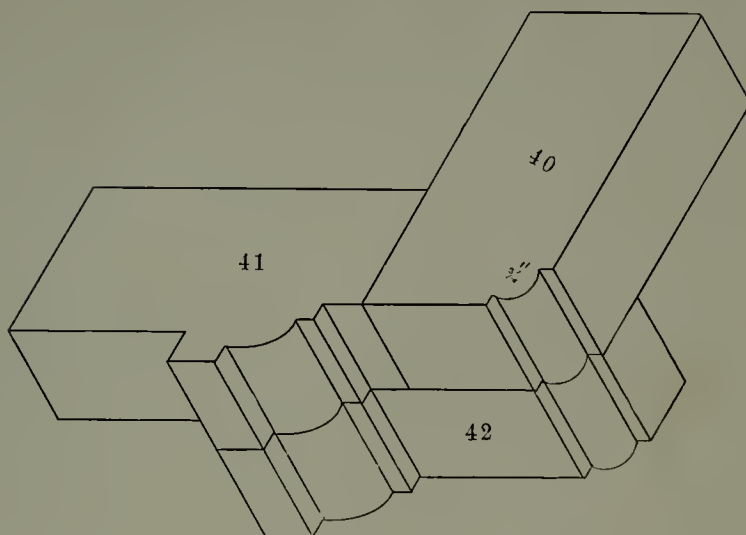
All the shapes on this page are made $2\frac{3}{8}$ inches thick.

PRESSED BRICK.

Scale $\frac{1}{4}$ full size.All the shapes on this page are made $1\frac{3}{4}$ or $2\frac{3}{8}$ inches thick.

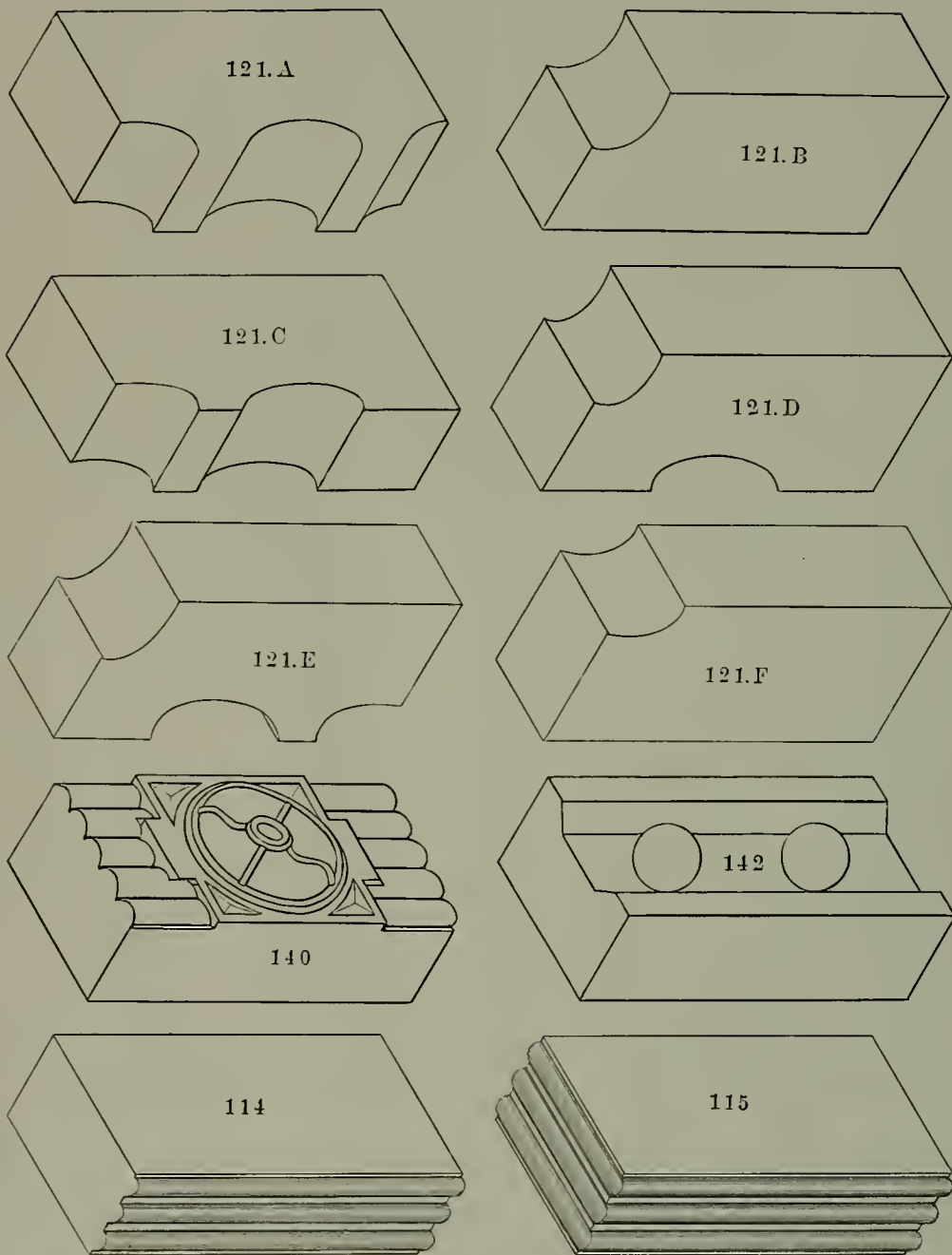
PRESSED BRICK.

Scale $\frac{1}{4}$ full size.



Nos. 83 and 104 are made $2\frac{3}{8}$ inches thick. All the other shapes are made either $1\frac{3}{4}$ or $2\frac{3}{8}$ inches thick.

PRESSED BRICK.

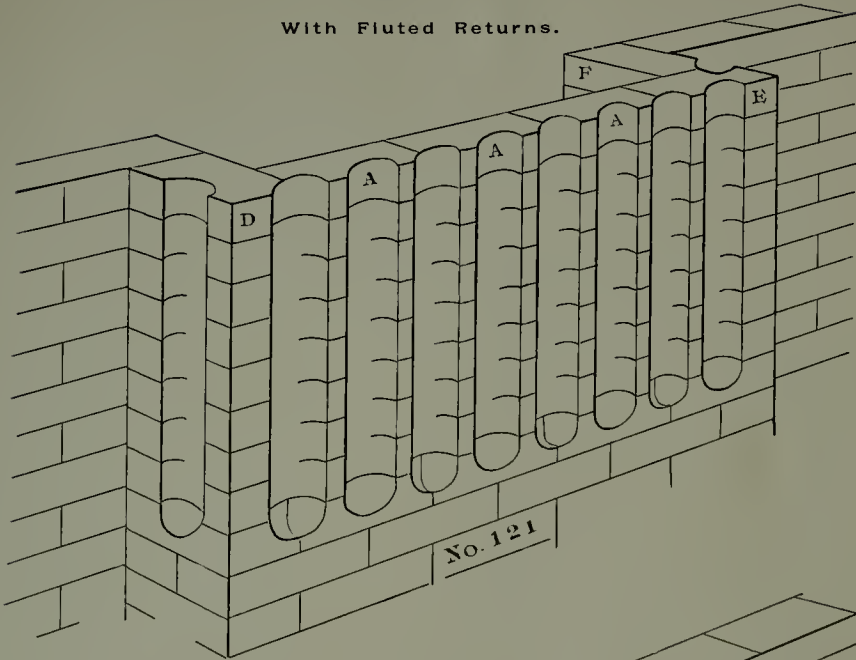
Scale $\frac{1}{4}$ full size.

Nos. 114, 115, 140 and 142 are made $2\frac{3}{8}$ inches thick. All the other shapes are made either $1\frac{3}{4}$ or $2\frac{3}{8}$ inches thick.

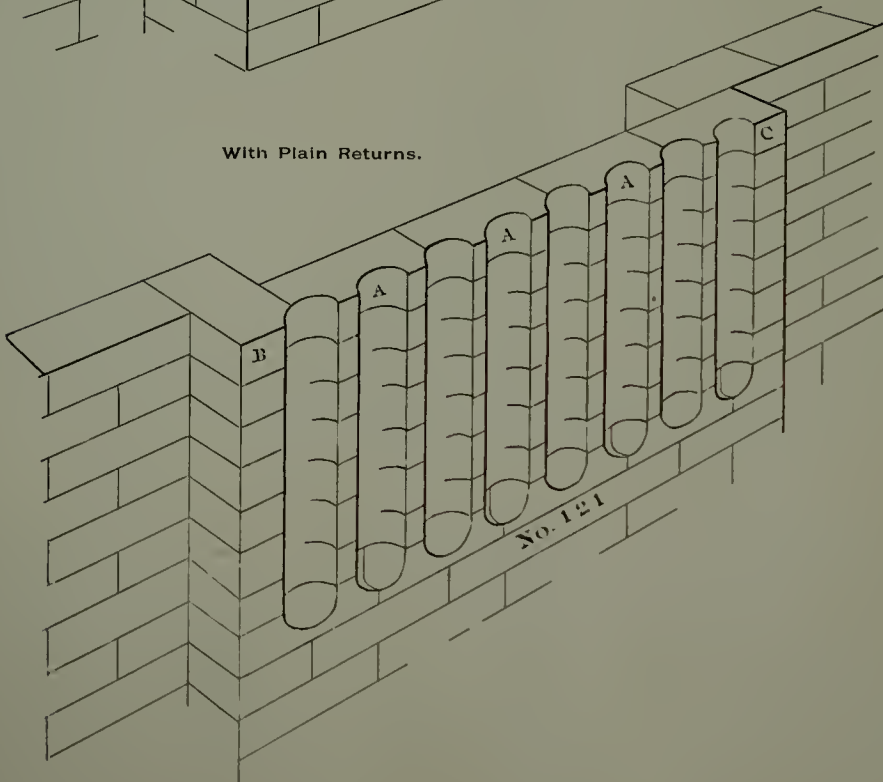
PRESSED BRICK.

Fluted for Pilasters.

With Fluted Returns.



With Plain Returns.



PRESSED BRICK.

FLAT ARCH.



No. 202

Give the following details :

Width of Opening

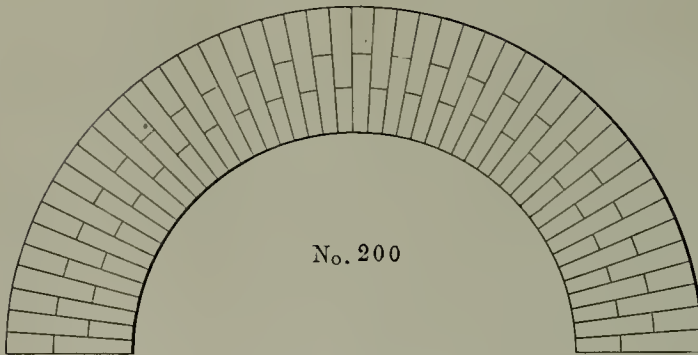
Height of Face

Depth of Reveal or Soffit

Thickness of Joints

We provide for $\frac{3}{16}$ -inch mortar joints unless otherwise specified.

SEMI-CIRCLE ARCH.



No. 200

Give the following details :

Width of Opening

Radius

Depth of Reveal or Soffit

Height of Face

Thickness of Joints

We provide for $\frac{3}{16}$ inch mortar joints unless otherwise specified.

BRICK MANTEL No. 1.



Width of Breast.....	5 feet 7 inches.	Returns at Sides.....	1 foot 0 $\frac{3}{8}$ inches.
Height of Mantel	4 " 3 "	Depth of Fire Box.....	1 " 9 "
Width of Opening.....	2 " 9 $\frac{1}{2}$ "	Height of Opening.....	2 feet 5 "
Length of Hearth.....	5 " 7 "	Width of Hearth.....	2 " 1 "

Price of Buff Face and Molded Brick necessary to erect this Mantel, Hearth and Fire Box, \$30.00.
Wood Shelf not included.

For this Mantel use our Roman shape brick, size 8 $\frac{1}{4}$ x4x1 $\frac{3}{4}$ inches, laid with $\frac{1}{8}$ -inch mortar joints. The dimensions of this Mantel can be varied by adding or omitting one or more lengths or courses of brick.

We securely crate the brick for shipment, also furnish 1 $\frac{1}{2}$ -inch scale drawing showing how to erect this Mantel.

BRICK MANTEL No. 2.



Width of Breast.....	4 feet 10¼ inches.	Returns at Sides.....	1 foot 0¾ inches.
Height of Mantel.....	4 " 4½ "	Depth of Fire Box	1 " 9 "
Width of Opening.....	2 " 9½ "	Height of Opening.....	2 feet 6 "
Length of Hearth	4 " 10¼ "	Width of Hearth	2 " 1 "

Price of Buff Face and Molded Brick necessary to erect this Mantel, Hearth and Fire Box, \$25.00.
Wood Shelf not included.

For this Mantel use our Standard shape brick, size 8¼x4x2¾ inches, laid with ⅛-inch mortar joints. The dimensions of this Mantel can be varied by adding or omitting one or more lengths or courses of brick.

We securely crate the brick for shipment, also furnish 1 ½-inch scale drawing showing how to erect this Mantel.

BRICK MANTEL No. 3.



Width of Breast.....4 feet $10\frac{1}{4}$ inches.
 Height of Mantel.....4 " $1\frac{1}{2}$ "
 Width of Opening.....2 " $9\frac{1}{2}$ "
 Length of Hearth.....4 " $10\frac{3}{4}$ "

Returns at Sides.....1 foot $0\frac{3}{8}$ inches.
 Depth of Fire Box.....1 " 9 "
 Height of Opening.....2 feet 6 "
 Width of Hearth.....2 " 1 "

Price of Buff Face and Molded Brick necessary to erect this Mantel, Hearth and Fire Box, \$25.00.
 Wood Shelf not included.

For this Mantel use our Roman shape brick, size $8\frac{1}{4} \times 4 \times 1\frac{3}{4}$ inches, laid with $\frac{1}{8}$ -inch mortar joints. The dimensions of this Mantel can be varied by adding or omitting one or more lengths or courses of brick.

We securely crate the brick for shipment, also furnish 1 $\frac{1}{2}$ -inch scale drawing showing how to erect this Mantel.

BRICK MANTEL No. 4.



Width of Breast.....5 feet 7 inches-
 Height of Mantel.....8 " 1½ "
 Height of Top Shelf.....5 " 0 "
 Width of Opening.....2 " 9½ "
 Length of Hearth.....5 " 7 "

Returns at Sides.....1 foot 4¾ inches.
 Depth of Fire Box.....1 " 9 "
 Height of Opening.....2 feet 8 "
 Width of Hearth.....2 " 1 "

Price of Buff Face and Molded Brick necessary to erect this Mantel, Hearth and Fire Box, \$42.50. Wood Shelf and Cornice not included.

For this Mantel use our Standard shape brick, size 8¼ x 4 x 2¾ inches, laid with ⅝-inch mortar joints.

The dimensions of this Mantel can be varied by adding or omitting one or more lengths or courses of brick.

We securely crate the brick for shipment, also furnish 1 ½-inch scale drawing showing how to erect this Mantle.

BRICK MANTEL No. 5.



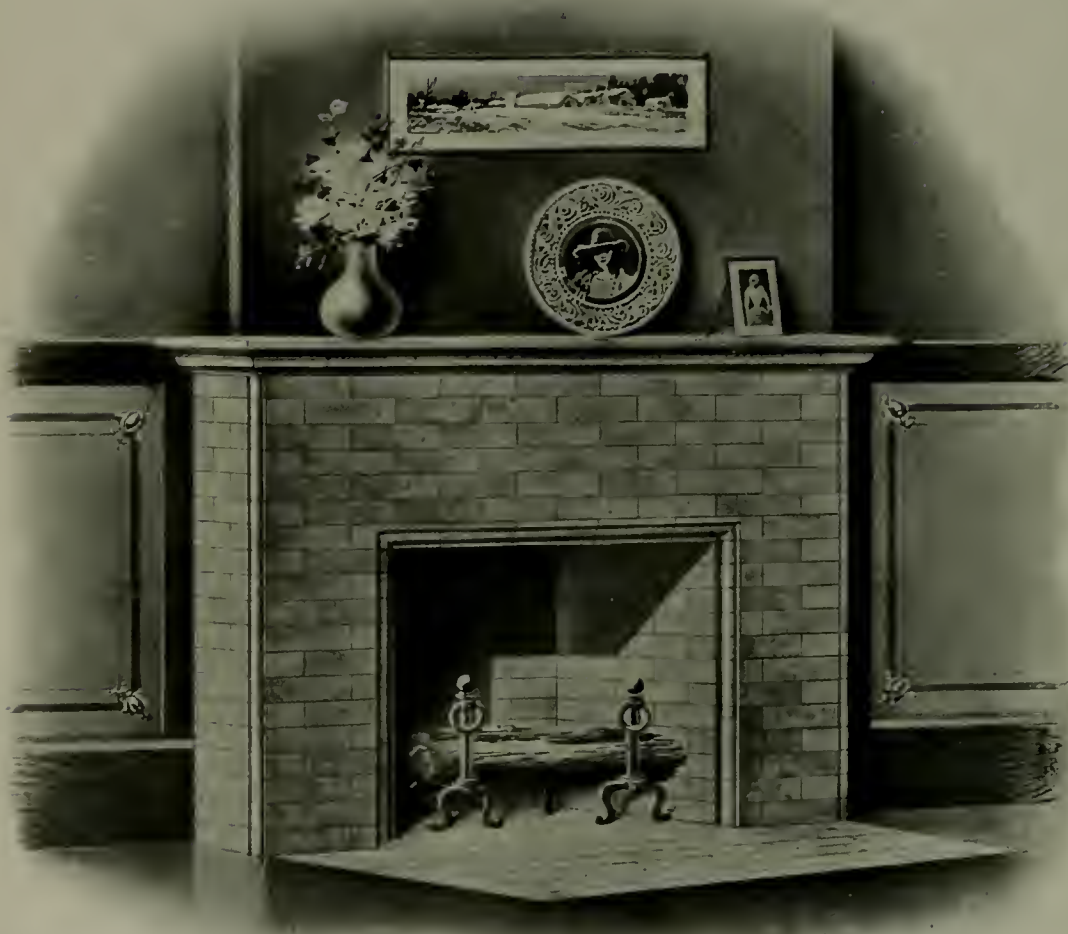
Width of Breast.....	4 feet 10 $\frac{1}{4}$ inches.	Returns at Sides	1 foot 0 $\frac{3}{8}$ inches.
Height of Mantel.....	4 " 1 $\frac{1}{2}$ "	Depth of Fire Box	1 " 8 "
Width of Opening.....	2 " 9 $\frac{1}{2}$ "	Height of Opening	2 feet 6 "
Length of Hearth	4 " 10 $\frac{1}{4}$ "	Width of Hearth.....	2 " 1 "

Price of Buff Face and Molded Brick necessary to erect this Mantel, Hearth and Fire Box, \$30.00.
Wood Shelf not included.

For this Mantel use our Roman shape brick, size 8 $\frac{1}{4}$ "x4x1 $\frac{3}{4}$ inches, laid with $\frac{1}{8}$ -inch mortar joints. The dimensions of this Mantel can be varied by adding or omitting one or more lengths or courses of brick.

We securely crate the brick for shipment, also furnish 1 $\frac{1}{2}$ -inch scale drawing showing how to erect this Mantel.

BRICK MANTEL No. 6.



Width of Breast.....4 feet $10\frac{1}{4}$ inches.
 Height of Mantel.....4 " 2 "
 Width of Opening.....2 " $9\frac{1}{2}$ "
 Length of Hearth.....4 " $10\frac{1}{4}$ "

Returns at Sides.....1 foot $0\frac{3}{8}$ inches.
 Depth of Fire Box.....1 " 9 "
 Height of Opening.....2 feet 6 "
 Width of Hearth.....2 " 1

Price of Buff Face and Molded Brick necessary to erect this Mantel, Hearth and Fire Box, \$22.50.
 Wood Shelf not included.

For this Mantel use our Standard shape brick, size $8\frac{1}{4} \times 4 \times 2\frac{3}{8}$ inches, laid with $\frac{1}{8}$ -inch mortar joints. The dimensions of this Mantel can be varied by adding or omitting one or more lengths or courses of brick.

We securely crate the brick for shipment, also furnish 1 $\frac{1}{2}$ -inch scale drawing showing how to erect this Mantel.

BRICK MANTEL No. 7.



Width of Breast	7 feet 8 inches.	Returns at Sides	1 foot 0 ³ / ₈ inches.
Height of Mantel	4 " 10 ³ / ₄ "	Depth of Fire Box	1 " 9 "
Width of Opening	4 " 2 ¹ / ₄ "	Height of Opening	2 feet 9 "
Length of Hearth	7 " 8 "	Width of Hearth	2 " 1 "
Width of Opening between Hobs	2 " 9 ¹ / ₂ "		

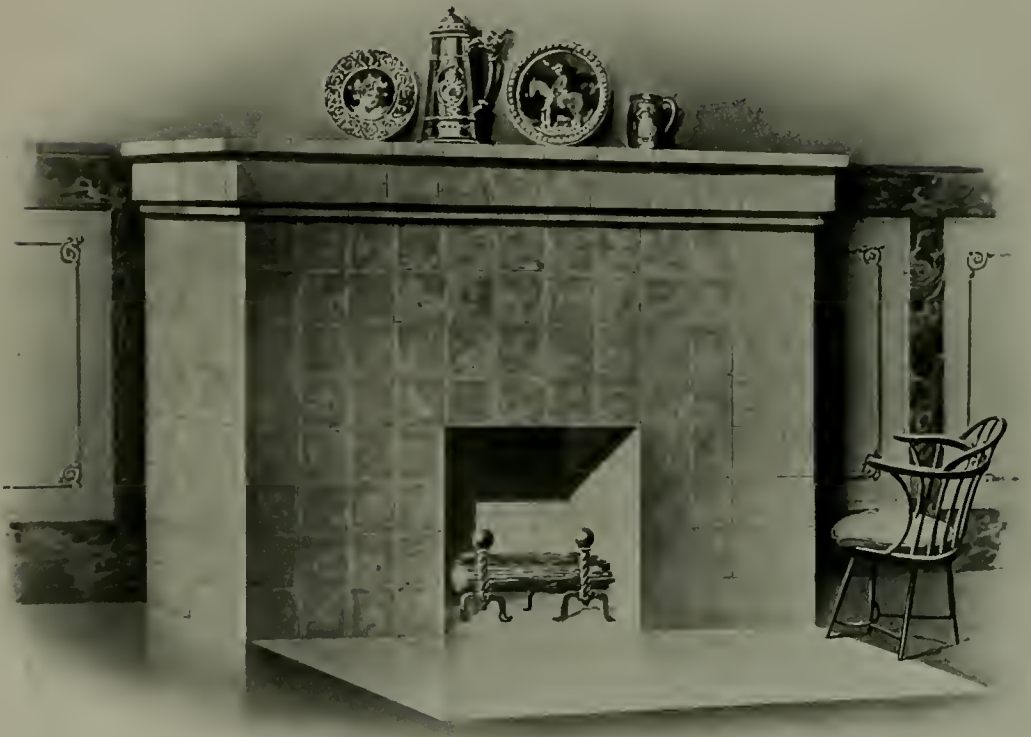
Price of Buff Face and Molded Brick necessary to erect this Mantel, Hearth and Fire Box, \$50.00.

Wood Shelf not included.

For this Mantel use our Roman shape brick, size 8 ¹/₄ x 4 x 1 ³/₄ inches, laid with ¹/₈-inch mortar joints. The dimensions of this Mantel can be varied by adding or omitting one or more lengths or courses of brick.

We securely crate the brick for shipment, also furnish 1 ¹/₂-inch scale drawing showing how to erect this Mantel.

TILE MANTEL No. 20.



Width of Breast.	8 feet $2\frac{3}{4}$ inches.	Returns at Sides	1 foot $6\frac{1}{2}$ inches.
Height of Mantel	6 " $6\frac{3}{4}$ "	Depth of Fire Box	1 " $6\frac{1}{2}$ "
Width of Opening	2 " $9\frac{1}{4}$ "	Height of Opening	2 feet $9\frac{1}{4}$ "
Length of Hearth	8 " $2\frac{3}{4}$ "	Width of Hearth	2 " 9 "

Price of Mottled Buff Tile necessary to erect this Mantel, Shelf, Hearth and Fire Box, \$65.00.

For this Mantel use our 8x8x2-inch tile for the face, hearth and fire box, with sufficient of other sizes for the shelf, all laid with $\frac{1}{4}$ -inch mortar joints.

The dimensions can be varied by adding or omitting tile.

We securely crate the tile for shipment, also furnish 1 $\frac{1}{2}$ -inch scale drawing showing how to erect this Mantel.

TILE MANTEL No. 21.



Width of Breast.....5 feet 11½ inches.
 Height of Mantel4 " 9¾ "
 Width of Opening..2 " 7 "
 Length of Hearth.....5 " 11½ "

Returns at Sides.....1 foot 10½ inches.
 Depth of Fire Box.....1 " 10 "
 Height of Opening .. .2 feet 6¾ "
 Width of Hearth.2 " 6¾ "

Price of Mottled Buff Tile necessary to erect this Mantel, Shelf, Hearth and Fire Box, \$50.00.

For this Mantel use our 10x10x2-inch tile for the face, hearth and fire box, with sufficient of other sizes for the shelf, all laid with ¼-inch mortar joints.

The dimensions can be varied by adding or omitting tile.

We securely crate the tile for shipment, also furnish 1 ½-inch scale drawing showing how to erect this Mantel.

TILE MANTEL No. 22.



Width of Breast.....9 feet 2 inches.
 Height of Mantel.....8 " 9 "
 Width of Opening.....5 " 1½ "
 Length of Hearth.....9 " 2 "

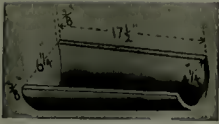
Returns at Sides2 feet 2½ inches.
 Depth of Fire Box.....2 " 2 "
 Height of Opening.....4 " 1¼ "
 Width of Hearth.....3 " 0¾ "

Price of Mottled Buff Tile necessary to erect this Mantel, Shelf, Cornice, Hearth and Fire Box, \$100.00.
 For this Mantel use our 12x12x2-inch tile for the face, hearth and fire box, with sufficient of other sizes for the shelf and cornice, all laid with ¼-inch mortar joints.

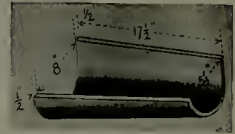
The dimensions can be varied by adding or omitting tile.

We securely crate the tile for shipment, also furnish 1 ½-inch scale drawing showing how to erect this Mantel.

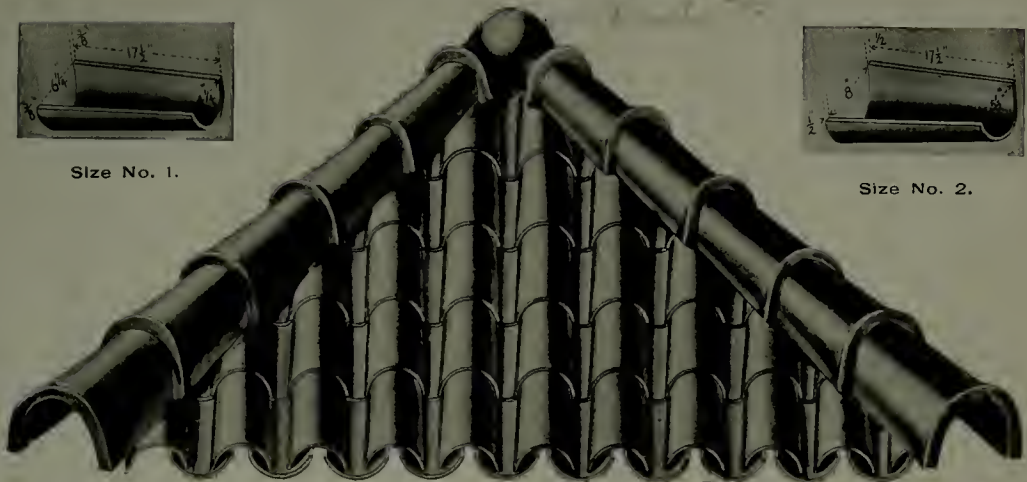
TERRA COTTA ROOFING TILE.



Size No. 1.

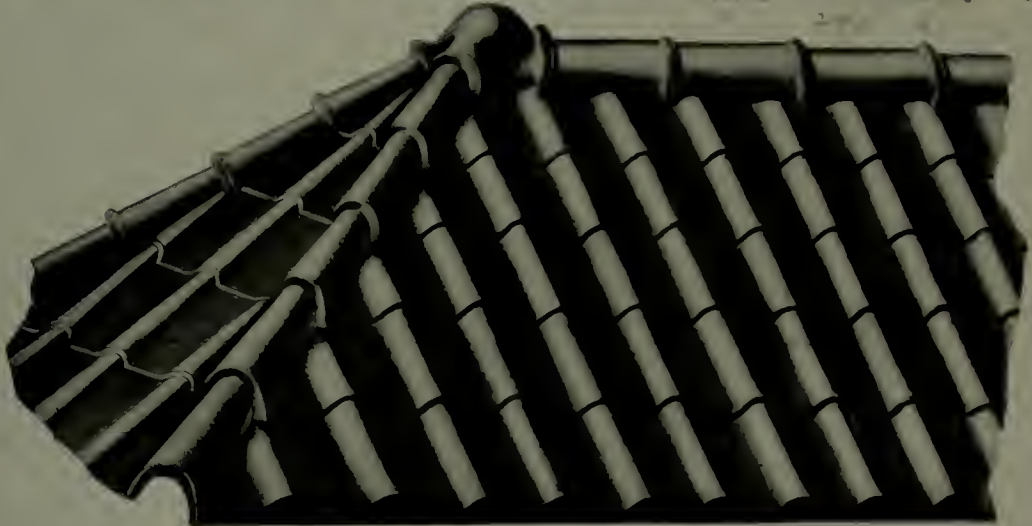


Size No. 2.

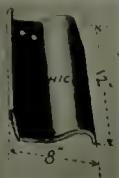


MISSION SPANISH TILE.

Handwritten notes: 1000 300 09



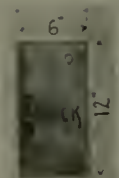
"S" SHAPE SPANISH TILE.



"S" PLAIN TILE.



"S" EAVE TILE.



FLAT TILE.

Our Terra Cotta Roofing Tiles can be seen on the following buildings :

Residence Mrs. Augusta K. Gibbs, San Francisco
 " Mrs. Reginald K. Smith, San Francisco.
 " Mr. Claus Spreckels, San Francisco.
 " Mr. F. H. McCullagh, Los Gatos, Cal.
 " Mr. V. J. A. Rey, Belvedere, Cal.
 " Mrs. O. J. Fay, Winthrop, Cal.
 " Mr. D. R. Cameron, Altadena, Cal.
 " Mr. Walter F. Burrell, Portland, Oregon.
 Claus Spreckels Building, San Francisco.
 Golden Gate Park Pumping Station, San Francisco.

Leland Stanford Jr. University (8 buildings), Palo Alto, Cal.
 Sainte Claire Club Building, San Jose, Cal.
 Columbarium Cypress Lawn Cemetery, San Francisco, Cal.
 Santa Fe Railway Station, Fresno, Cal.
 Santa Fe Railway Station, Stockton, Cal.
 Beale Library Building, Bakersfield, Cal.
 Bank of Selma, Selma, Cal.
 Green Hotel Annex, Pasadena, Cal.
 Telephone Station, Los Angeles, Cal.
 Fire Engine House No. 4, Honolulu, H. I.

Architectural Terra Cotta.

One of the most marked improvements connected with the building trade during the past decade is the use of Terra Cotta for the purpose of architectural decoration.

The growing popularity of Terra Cotta is conclusively proven by its use in many of the most artistic and costly fire proof buildings of to-day.

QUALITY.

We have spared neither time, money nor energy to enable us to offer the best quality of *Water Proof* Terra Cotta that can be produced. The bodies of our wares are unexcelled for strength, beauty and durability. As we employ the best artists that can be procured, our wares also excel from an artistic point of view.

COLOR.

We can manufacture any shape and shade in buff, red, brown or gray, in fact we are prepared to match almost any color of brick or sandstone.

We should be glad to furnish, upon application, small samples of any of the above colors.

ESTIMATES.

Owing to the great variation in design, shape and dimensions of this class of work, it is necessary, in order to make an intelligent estimate, for us to have elevations (showing the Terra Cotta tinted in green or red) sections and plans with figured dimensions.

SPECIAL DESIGNS.

To produce special designs it is absolutely necessary to have the fullest accurate information and all the details at least sixty days before the first of the work is required.

DIMENSIONS.

When making details for Terra Cotta allow not to exceed one-quarter ($\frac{1}{4}$) inch for mortar joints. If possible, detail the work to course both in height and length with our pressed brick, as shown by the views on page 48.

NOTICE.

The Terra Cotta designs illustrated on the following pages we do not carry in stock.

We have the moulds and can duplicate at 6 weeks' notice any of the designs for which we have given prices. The patterns for which prices are not given are special; prices quoted for similar work.

ARCHITECTURAL TERRA COTTA.

The following is a list of buildings erected during the past few years for which we have furnished from \$2,000 to \$75,000 worth of Architectural Terra Cotta.

BUILDINGS AND LOCATION. ARCHITECTS.

SAN FRANCISCO.

Affiliated Colleges	J. E. Krafft, Marteus & Coffey
Auzerais Building	Pissis & Moore
Clark Building	Edward R. Swain
Chronicle Building	Burnham & Root
Curtaz Building	Emil John
Win. H. Crocker's Residence	Curlett & Cuthbertson
Crellin Building	W. J. Mathews
California Hotel and Theatre	J. M. Wood
Casey Building	H. A. Schulze
Delmonico Cafe	Pissis & Moore
Douohoe Building	A. Page Brown
Golden Gate Park Music Stand	Reid Brothers
Hall of Justice	Shea & Shea
Hale Brothers Building	Reid Brothers
Hearst Building (S. F. Examiner)	A. C. Schweinfurth
Hotel Savoy	Pissis & Moore
Kohn & Ivancovitch Building	Pissis & Moore
Liebes Building	Emil John
Mercantile Library	Pissis & Moore
Mills Building	Burnham & Root
Mission High School	Havens & Toepke
Mission Masonic Lodge	Hermann & Swain
Moffat Building	C. R. Wilson
McCarthy Bldg. (Smith Cash Store)	Shea & Shea
Mutual Life Ins. Co.'s Building	Clinton Day
New City Hall Dome	Shea & Shea
Otis Building	Wm. F. Smith
Parrott Building (Sacramento and Davis Sts.)	Pissis & Moore
Pacific States Telephone & Telegraph Co.'s Building	Wm. F. Smith
Pioneer Hall	Wright & Sanders
San Francisco Savings Union	Wm. Curlett
San Francisco Verein Building	Safield & Kohlberg
San Francisco Gas & Electric Light Co.	Clinton Day
Sharon Estate Building	Shepley, Rutan & Coolidge
Somers Building (Press Club)	Percy & Hamilton
Southern Police Station	Shea & Shea
Spring Valley Water Works Bldg.	Clinton Day
St. Dunstan Building	Clinton Day
Studebaker Building	Clinton Day
Supreme Court Building	T. J. Welsh
St. Nicholas Hotel	J. H. Littlefield
Claus Spreckels Building	Reid Brothers
Spreckels Market Building	Reid Brothers
Spreckels Building (Market, near Eddy St.)	Reid Brothers
John D. Spreckels' Residence	Reid Brothers
Claus Spreckels' Residence	Reid Brothers
Risdon Iron Works Building	W. J. Mathews
*Tehau Tavern	Chas. M. Rosseau
Union Trust Co.'s Building	Clinton Day
*United States Post Office	U. S. Supervising Architect
Wells, Fargo & Co.'s Building	Percy & Hamilton
Young Building	Kenitzer & Barth

Stockton, Cal.

Pioneer Hall	Percy & Hamilton
St. John's Church	A. Page Brown
Yosemite Theatre	Wood & Lovell
Hubbard-Bours-Salz Building	W. W. Oates

Oakland, Cal.

Oakland Gas Light & Heat Co.'s Building	Coxhead & Coxhead
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San Diego, Cal.

Elk Building	Zimmer & Reamer
Marston Building	Reid Brothers

*We furnished Enamelled Terra Cotta for these buildings

BUILDINGS AND LOCATION. ARCHITECTS.

Salinas, Cal.

McDougall Building	W. H. Weeks
------------------------------	-------------

Watsonville, Cal.

Pajaro Valley Bank Building	A. B. Chalmers
---------------------------------------	----------------

Hollister, Cal.

Grangers' Union Building	Wieland & Binder
------------------------------------	------------------

Auburn, Cal.

Placer County Court House	J. M. Curtis
-------------------------------------	--------------

San Jose, Cal.

O. A. Hale Building	Reid & Mecker
-------------------------------	---------------

Santa Cruz, Cal.

Santa Cruz County Court House	N. A. Comstock
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Los Angeles, Cal.

Byrne Building	Sumner P. Hunt
Boston Dry Goods Store	Eisen & Hunt
Douglass Building	Reid Brothers
Hunt Hotel	John Parkinson
Howell Building	Burton & Parkinson
Homer Laughlin Building	John Parkinson
Main St. Improvement Co.'s Bldg.	Hugh Todd
Nelson Story's Building	Morgan & Walls
Van Nuys Hotel	Morgan & Walls

Santa Barbara, Cal.

Ethian Building	Thos. Nixon
---------------------------	-------------

Portland, Or.

Corbett Building	Whidden & Lewis
Failing Building	Whidden & Lewis
Meier & Frank Co.'s Building	Whidden & Lewis
Marquam Theatre	J. M. Wood
Donald McCleay's Building	McCaw & Martin
Union Meat Co.'s Building	Fred T. Peterson
U. S. Custom House	U. S. Superv'g Arch't
Weinhard Building	Henry J. Hefly

Seattle, Wash.

Burke Building	E. H. Fisher
Masonic Temple Building	Towle & Wilcox
New York Building	Boone & Wilcox
Vesler Building	E. H. Fisher
G. Morris Haller Building	E. H. Fisher

Fairhaven, Wash.

Allen C. Mason Building	Pickles & Sutton
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Tacoma, Wash.

Baker Building	Pickles & Sutton
Fidelity Trust Co.'s Building	Burnham & Root
Muehlebruch & Mahneke Building	Pickles & Sutton
National Bank Commerce Building	C. Langlois
Pacific Bank Building	Burnham & Root
Tacoma Chamber Commerce Bldg.	E. A. Hatherton
Tacoma Land Co.'s Hotel	G. W. & W. D. Hewitt
Tacoma Land Co.'s Office Building	Pickles & Sutton
Tacoma City Hall	E. A. Hatherton
Wallace Building	Pickles & Sutton

Spokane, Wash.

Spokane Club Building	John K. Dow
Spokane National Bank Building	Cutter & Poetz
Public School Building	Chas. F. Helmle
The Review Building	C. B. Seaton

Butte, Montana.

Thornton Building	White & Lignell
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Honolulu, H. I.

Brewer Building	O. G. Traphagen
Flite Building	O. G. Traphagen
Judd Building	O. G. Traphagen
McIntyre Building	O. G. Traphagen

ARCHITECTURAL TERRA COTTA.



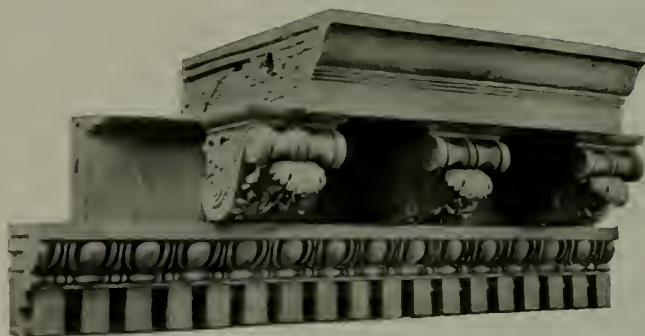
No. 1100.

Height, 1 foot 9 inches. Projection, 1 foot 3 inches. \$6.50 lineal foot. Add 1 foot for each mitre.



No. 1101.

Height, 4 feet 6 inches. Projection, 2 feet 3 inches. \$15.00 lineal foot. Add 1 foot for each mitre.

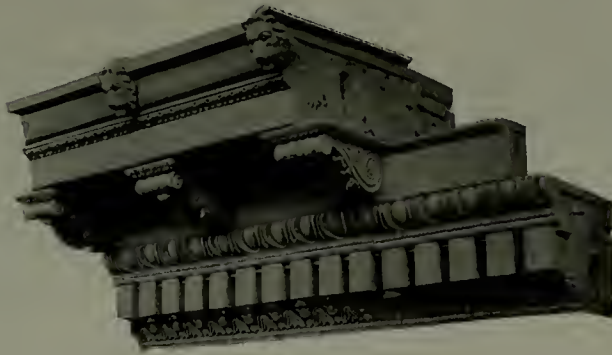


No. 1102.

Height, 2 feet 6 inches. Projection, 1 foot 6 inches. \$10.00 lineal foot. Add 1 foot for each mitre

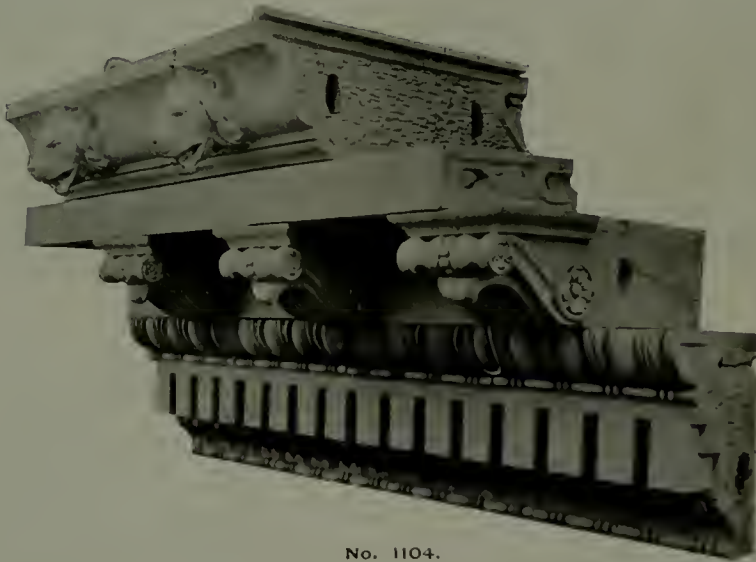
⚡ Please carefully read Page 70. ⚡

ARCHITECTURAL TERRA COTTA.



No. 1103.

Height, 2 feet 8 inches. Projection, 2 feet 2 inches. \$15.00 lineal foot. Add 1 foot for each mitre.



No. 1104.

Height, 4 feet 3 inches. Projection, 3 feet. \$20.00 lineal foot. Add 1 foot for each mitre.



No. 1105.

Height, 2 feet. Projection, 1 foot 10 inches.
\$8.00 lineal foot. Add 1 foot for each mitre.



No. 1106.

Height, 2 feet 6 inches. Projection, 1 foot 6 inches.
\$10.00 lineal foot. Add 1 foot for each mitre.

ARCHITECTURAL TERRA COTTA.



No. 1120.

Height, 1 foot $5\frac{3}{4}$ inches.For Pilasters, 1 foot $4\frac{3}{4}$ inches, with $8\frac{1}{4}$ -inch returns.
\$10.00 each.

No. 1121.

Height, 1 foot $5\frac{3}{4}$ inches.For Pilasters, 1 foot $4\frac{3}{4}$ inches, with $4\frac{1}{8}$ -inch returns.
\$8.00 each.

No. 1122.

\$7.50 each.



No. 1123.

\$3.00 each.

Height Cap, 1 foot $5\frac{3}{4}$ inches. Height Base, $7\frac{1}{2}$ inches.
For Pilasters, 1 foot $4\frac{3}{4}$ inches, with $4\frac{1}{8}$ -inch returns.
Pilasters with corners 2-inch radius.

No. 1124.

\$6.00 each.



No. 1125.

\$3.00 each.

Height Cap, 1 foot 3 inches. Height Base, $7\frac{1}{2}$ inches.
For Pilasters, 1 foot $4\frac{3}{4}$ inches, with $4\frac{1}{8}$ -inch returns.

No. 1126.



No. 1127.

Height, 10 inches.

For Pilasters, $12\frac{1}{2}$ inches, with $8\frac{1}{4}$ -inch returns. \$4.00 each.

No. 1128.

Please carefully read Page 70.

ARCHITECTURAL TERRA COTTA.



No. 1129.

Height, 7 inches.

For Fluted Columns, 10 $\frac{3}{8}$ -inches diameter.
\$5.00 each.



No. 1130.

Height, 10 inches.

For Pilasters, 2 feet 1 inch, with 8 $\frac{1}{4}$ -inch returns.
\$10.00 each.



No. 1131.

Height, 1 foot 11 inches.

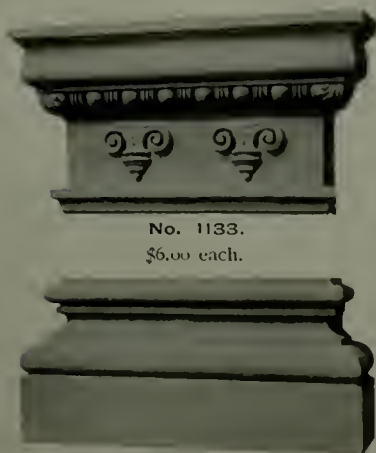
For Pilasters, 1 foot 4 $\frac{3}{4}$ inches, with 4 $\frac{1}{8}$ -inch returns.
\$9.00 each.



No. 1132.

Height, 2 feet 1 $\frac{1}{4}$ inches.

For Pilasters, 1 foot 9 inches, with 8 $\frac{1}{4}$ -inch returns.
\$15.00 each.



No. 1133.

\$6.00 each.



No. 1135.

Height, 2 feet 1 $\frac{1}{4}$ inches.

Height Cap, 1 foot 3 inches. Height Base, 12 $\frac{5}{8}$ inches.
For Pilasters, 1 foot 9 inches, with 4 $\frac{1}{8}$ -inch returns.

For Pilasters, 1 foot 9 inches, with 4 $\frac{1}{8}$ -inch returns.
\$12.50 each.

ARCHITECTURAL TERRA COTTA.



No. 1136.



No. 1137.



No. 1138.



No. 1139.

ARCHITECTURAL TERRA COTTA.



No. 1140.



No. 1141. \$50.00 each.



No. 1142. \$10.00 each.

Height Cap, 4 feet 1 inch. Height Base, 1 foot 3 1/4 inches. For Pilasters 3 feet 1 1/4 inches, with 4 1/2-inch returns.

— Please carefully read Page 70. —

ARCHITECTURAL TERRA COTTA.



No. 1175.



No. 1176.



No. 1177. Diameter, 1 foot 6 inches. \$5.00 each.



No. 1178. Diameter, 2 feet. \$10.00 each.



No. 1179. Diameter, 2 feet 6 inches. \$12.50 each.

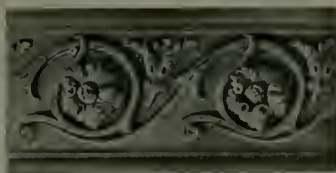


No. 1180. Diameter, 3 feet. \$15.00 each.

Please carefully read Page 70.

ARCHITECTURAL TERRA COTTA.

No. 1200.



No. 1201. Height, 12 inches. Bond, 4 inches.
\$1.75 lineal foot.



No. 1202. Length, 4 feet 4 1/2 inches. Height, 1 foot 3 1/2 inches.
Bond, 5 inches. \$10.00 each.



No. 1203. Height, 2 feet. Bond, 4 inches. \$4.00 lineal foot.



No. 1204.



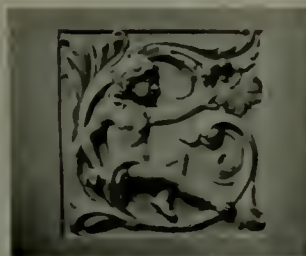
No. 1205.



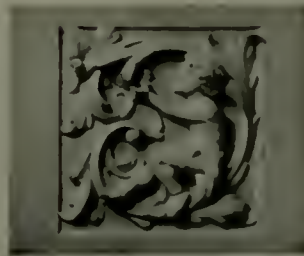
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No. 1207.

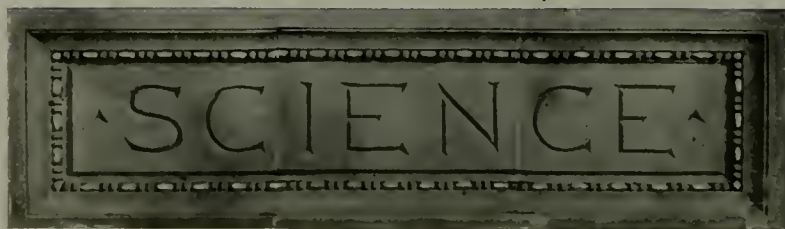


No. 1208.



No. 1209.

GLADDING, McBEAN & COMPANY
ARCHITECTURAL TERRA COTTA.



No. 1219.



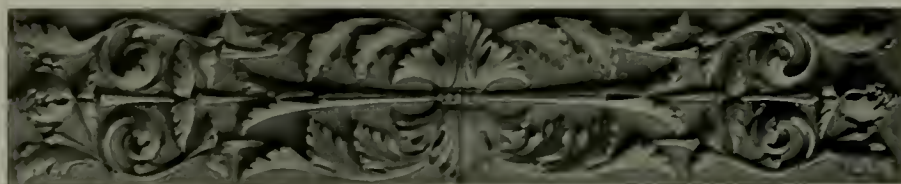
No. 1220.



No. 1221.



No. 1222.

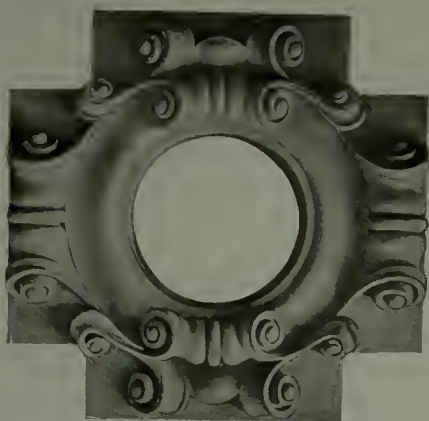


No. 1223.

Length, 7 feet 1 inch. Height, 1 foot 4½ inches. Bond, 4 inches. \$17.50 each.

☛ Please carefully read Page 70. ☛

ARCHITECTURAL TERRA COTTA.



No. 1224.



No. 1225.



No. 1226.



No. 1227.

ARCHITECTURAL TERRA COTTA.

No.
1228.

No. 1229.

Please carefully read Page 70.



No. 1230.

ARCHITECTURAL TERRA COTTA.



No. 1240.



No. 1241.



No. 1242.



No. 1245.



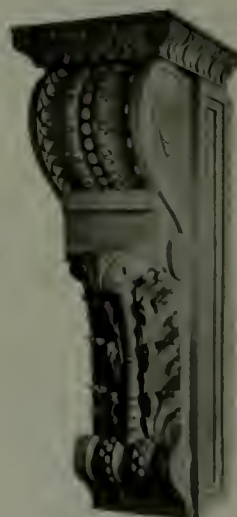
No. 1243.

Height, 2 feet 3 inches. Radius, 6 feet.
Reveal, 6½ inches. Projection, 7½
inches. \$7.50 each.



No. 1244.

Height, 14 inches. Reveal, 6 inches.
Projection, 2½ inches. Radius, 2 feet
10 inches. \$3.00 each.



No. 1246.



No. 1247.



No. 1248.



No. 1249.

Height, 17½ inches. Width at bottom, 13½ inches. Width at top, 21½ inches. Bond, 4 inches.
Projection, 13 inches. \$10.00 each.

ARCHITECTURAL TERRA COTTA.



No. 1260.

Height, 2 feet 4 inches. \$5.00 lineal foot.



No. 1261.

Height, 2 feet 5 inches. \$5.00 lineal foot.



No. 1262.



No. 1263.

Height, 3 feet 5 inches. \$7.50 lineal foot.

ARCHITECTURAL TERRA COTTA.



No. 1270.

Height, 1 foot 10 inches. 1 foot $4\frac{3}{4}$ inches square at base. \$9.00 each.



No. 1271.



No. 1272.

COPINGS.



No. 1280.

Height, 6 inches.

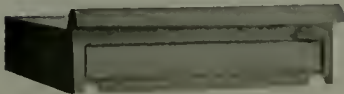
For 13 - inch wall, \$1.25 lineal foot.
For 17 $\frac{1}{4}$ -inch wall, 1.75 " "
For 21 $\frac{1}{2}$ -inch wall, 2.25 " "



No. 1283.

Height, 3 $\frac{1}{2}$ inches.

For 13 - inch wall, \$1.00 lineal foot.
For 17 $\frac{1}{4}$ -inch wall, 1.50 " "
For 21 $\frac{1}{2}$ -inch wall, 2.00 " "



No. 1281.

Height, 4 inches.

For 13 - inch wall, \$1.00 lineal foot.
For 17 $\frac{1}{4}$ -inch wall, 1.50 " "
For 21 $\frac{1}{2}$ -inch wall, 2.00 " "



No. 1284.

Height, 5 $\frac{1}{2}$ inches.

For 13 - inch wall, \$1.00 lineal foot.
For 17 $\frac{1}{4}$ -inch wall, 1.50 " "
For 21 $\frac{1}{2}$ -inch wall, 2.00 " "



No. 1282.

Height, 6 inches.

For 13 - inch wall, \$1.00 lineal foot.
For 17 $\frac{1}{4}$ -inch wall, 1.50 " "
For 21 $\frac{1}{2}$ -inch wall, 2.00 " "



No. 1286.

Height, 6 inches.

For 13 - inch wall, \$1.25 lineal foot.
For 17 $\frac{1}{4}$ -inch wall, 1.75 " "
For 21 $\frac{1}{2}$ -inch wall, 2.25 " "



No. 1285.

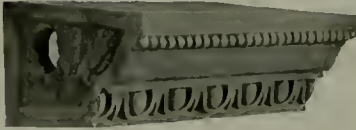
Height, 7 inches.

For 13 - inch wall, \$1.50 lineal foot.
For 17 $\frac{1}{4}$ -inch wall, 2.00 " "
For 21 $\frac{1}{2}$ -inch wall, 2.50 " "

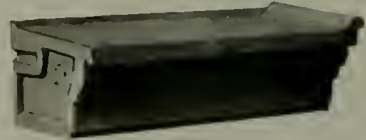
ARCHITECTURAL TERRA COTTA.



No. 1300. Height, $8\frac{1}{4}$ inches. Projection, $3\frac{1}{4}$ inches. Depth at top, $17\frac{1}{4}$ inches. \$2.50 lineal foot.



No. 1302. Height, $8\frac{1}{2}$ inches. Projection, $4\frac{1}{2}$ inches. Depth at top, $14\frac{1}{2}$ inches. \$2.25 lineal foot.



No. 1303. Height, $7\frac{1}{2}$ inches. Projection, $3\frac{1}{2}$ inches. Depth at top, 12 inches. \$1.75 lineal foot.



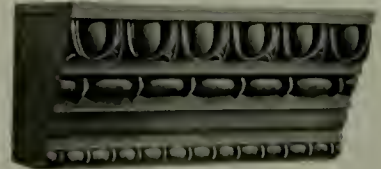
No. 1304. Height, 12 inches. Projection, $6\frac{1}{2}$ inches. Depth at top, $17\frac{1}{4}$ inches. \$3.75 lineal foot.



No. 1305. Height, 12 inches. Projection, $6\frac{1}{2}$ inches. Depth at top, $17\frac{1}{4}$ inches. \$3.75 lineal foot.



No. 1306. Height, $11\frac{3}{4}$ inches. Projection, 4 inches. Bond, 4 inches. \$2.00 lineal foot.



No. 1307. Height, 11 inches. Projection, $4\frac{1}{2}$ inches. Bond, 4 inches. \$1.65 lineal foot.



No. 1308. Height, $7\frac{1}{2}$ inches. Projection, 3 inches. Bond, 4 inches. \$1.25 lineal foot.



No. 1309. Height, $5\frac{3}{8}$ inches. Projection, $2\frac{1}{4}$ inches. Bond, 4 inches. \$0.85 lineal foot.



No. 1310. Height, 7 inches. Projection, 3 inches. Bond, 4 inches. \$1.00 lineal foot.



No. 1311. Height, $7\frac{7}{8}$ inches. Bond, 4 inches. \$1.25 lineal foot.



No. 1312. Height, $6\frac{5}{8}$ inches. Bond, 4 inches. \$1.00 lineal foot.

ARCHITECTURAL TERRA COTTA.



No. 1330.



No. 1331.



No. 1332.



No. 1333.



No. 1334.



No. 1335.



No. 1336.



No. 1337.



No. 1338.

ARCHITECTURAL TERRA COTTA

2' 2"

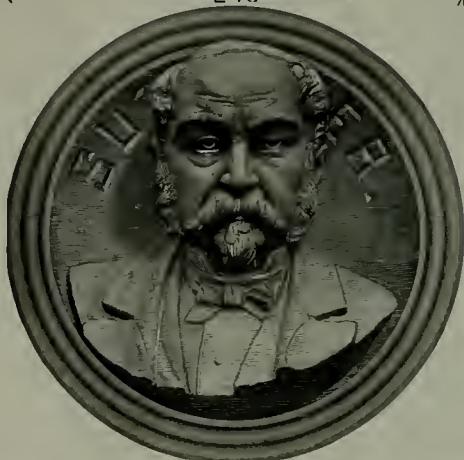


No. 1350.



No. 1351.

2' 10"



No. 1352.

2' 2"



No. 1353.

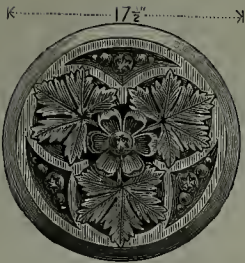
\$25.00 each.



No. 1354.

Please carefully read Page 70.

ARCHITECTURAL TERRA COTTA.



No. 1355.

\$4.00 each.



No. 1356.

\$7.50 each.



No. 1357.

\$5.00 each.



*No. 1362.



No. 1358.

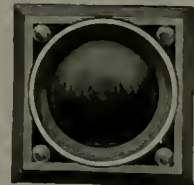
\$10.00 each.



*No. 1364.



*No. 1363.



*No. 1365.



No. 1359.

\$2.00 each.



No. 1360.

\$4.00 each.



No. 1361.

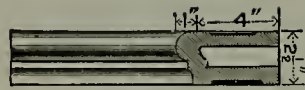
\$2.00 each.

*Prices Nos. 1362, 1363, 1364 and 1365: 5x5 inches, 25c each; 7 1/2 x 7 1/2 inches, 50c each; 10x10 inches, \$1.25 each; 12 1/2 x 12 1/2 inches, \$1.50 each; 15x15 inches, \$2.50 each.

ARCHITECTURAL TERRA COTTA.



No. 1370. 40 cts. foot.



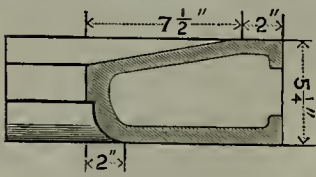
No. 1371. 40 cts. foot.



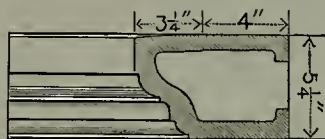
No. 1372. 50 cts. foot.



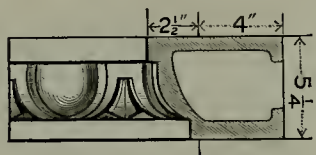
No. 1373. 50 cts. foot.



No. 1374. \$1.25 foot.



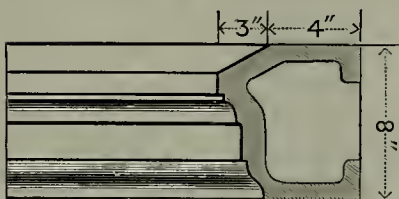
No. 1375. \$1.00 foot.



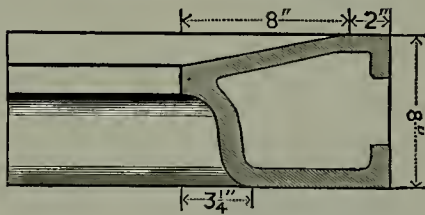
No. 1376. \$1.25 foot.



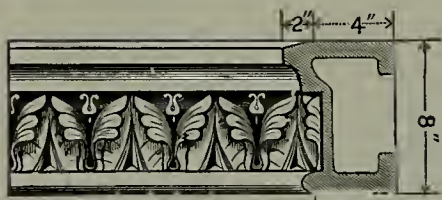
No. 1377. \$1.00 foot.



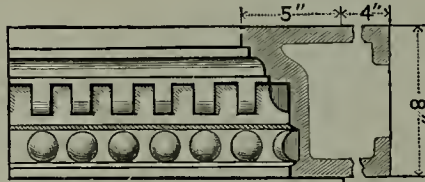
No. 1378. \$1.50 foot.



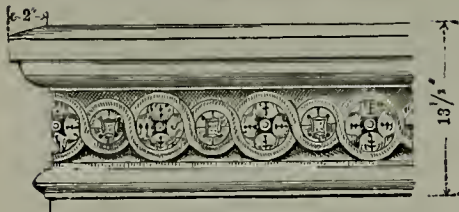
No. 1379. \$1.75 foot.



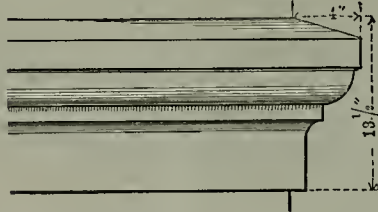
No. 1380. \$1.50 foot.



No. 1381. \$1.75 foot.

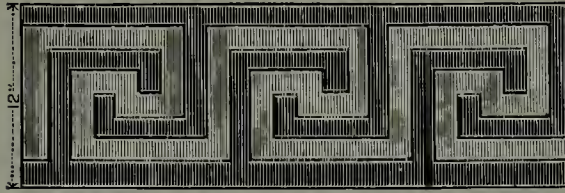


No. 1382. \$2.25 foot.



No. 1383. \$2.00 foot.

ARCHITECTURAL TERRA COTTA.



No. 1390.

Bond, 4 inches. \$1.75 lineal foot.



No. 1391.

Bond, 4 inches. \$2.00 lineal foot.



No. 1392.

Bond, 4 inches. \$1.50 lineal foot.

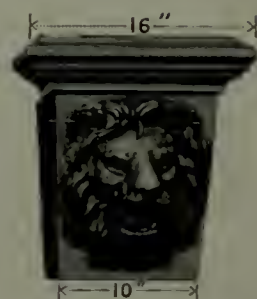


No. 1393.

Bond, 4 inches. \$2.50 lineal foot.



No. 1394.
\$5.00 each.

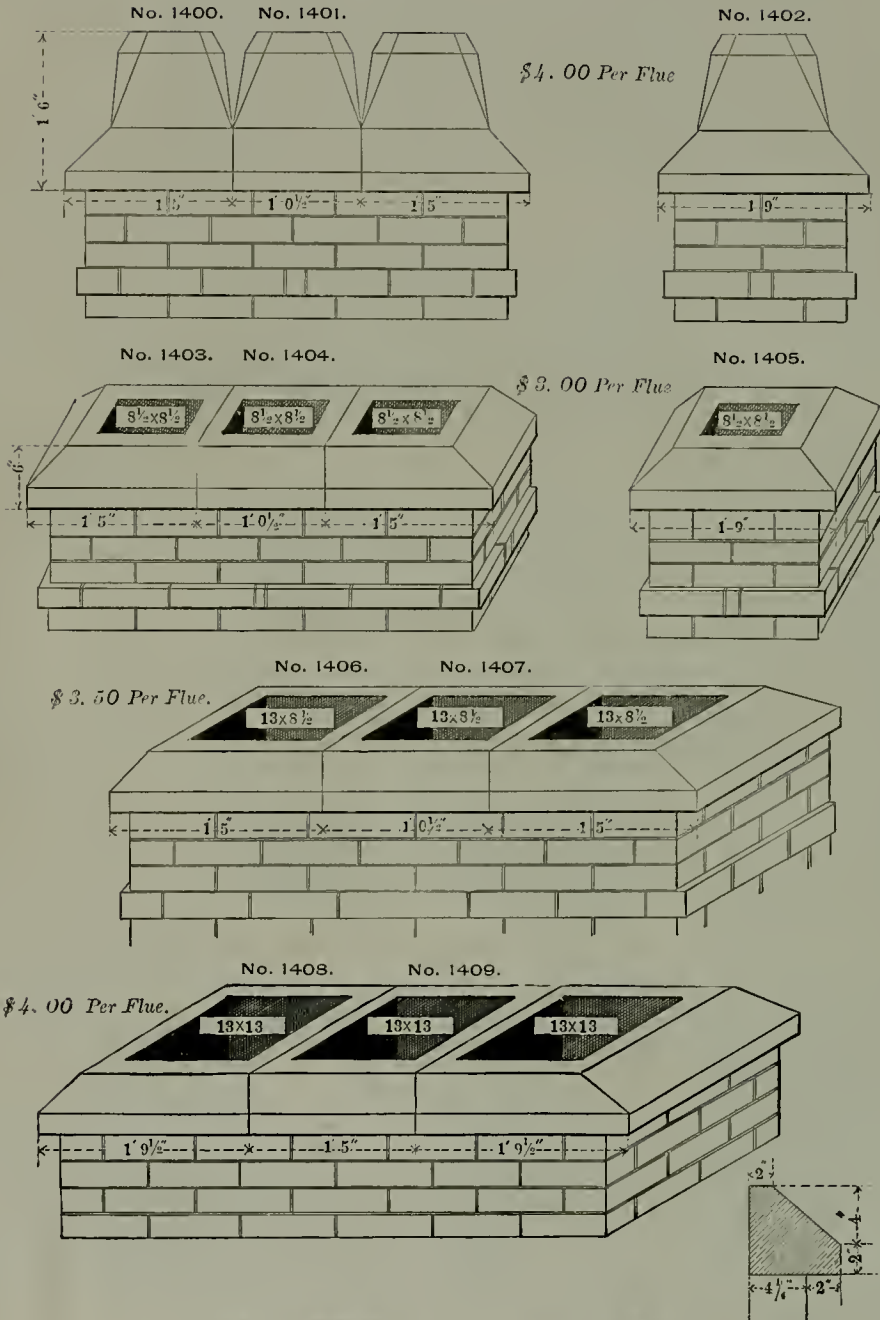


No. 1395.
\$5.00 each.

Please carefully read Page 70.

ARCHITECTURAL TERRA COTTA.

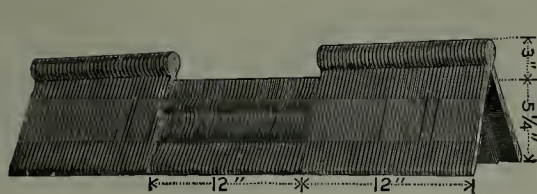
CHIMNEY COPING.



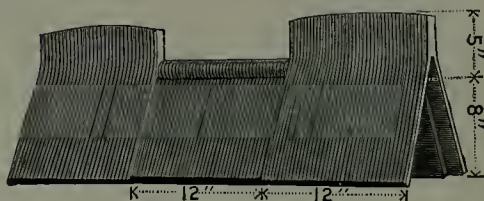
ARCHITECTURAL TERRA COTTA.

CRESTINGS.

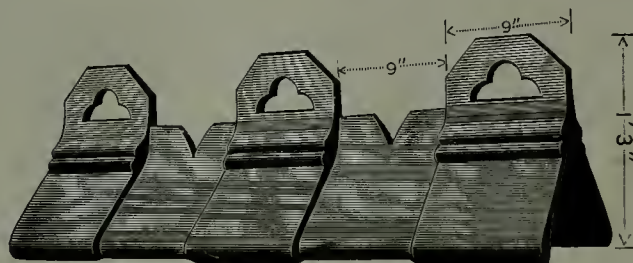
NOTE.—Orders should state angles of roofs.



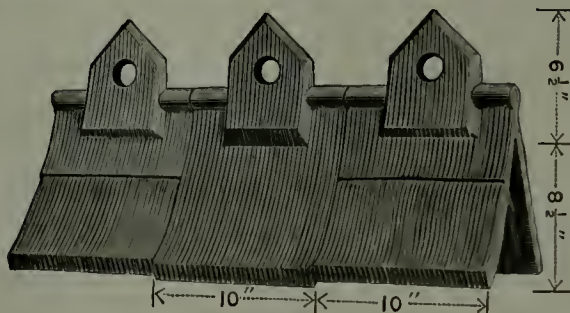
No. 1420. 75 cts. lineal foot.



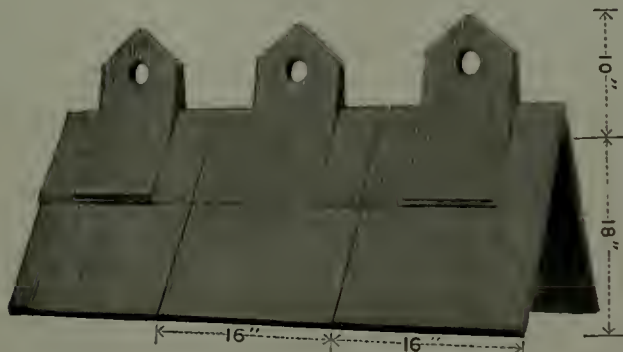
No. 1421. \$1.00 lineal foot.



No. 1422. \$1.25 lineal foot.



No. 1423. \$1.50 lineal foot.



No. 1424. \$2.50 lineal foot.

Please carefully read Page 70.

On this and the following pages we have given photos of a few of the buildings for which we have furnished Architectural Terra Cotta, Pressed Brick, Hollow Tile Fire Proofing and Roofing Tile, etc.



WELLS, FARGO & CO.'S BUILDING, SAN FRANCISCO, CAL.

PERCY & HAMILTON, Architects.

We furnished for this building our standard shape Gray Brick, Shade No. 60, and Terra Cotta to match, also Enamelled Hollow Tile for the interior light court.



MILLS BUILDING, SAN FRANCISCO, CAL.

BURNHAM & ROOT, Architects.

We furnished the Light Buff Terra Cotta Trimmings, also the Hollow Tile Fire Proofing for the interior of this building.



UNION TRUST COMPANY'S BUILDING, SAN FRANCISCO, CAL.

CLINTON DAY, Architect.

We furnished for this building our Roman shape Buff Brick, Shade No. 38, with Terra Cotta to match ; also all the Hollow Tile Fire Proofing for the interior construction, and our system of Fire Proof Roof Construction illustrated on page 39.



MUTUAL LIFE INSURANCE COMPANY'S BUILDING, SAN FRANCISCO, CAL.

CLINTON DAY, Architect.

We furnished for this building a light buff Roman shape Brick, with Terra Cotta Trimmings to match; also all the Hollow Tile Fire Proofing for the interior construction, and our system of Fire Proof Roof Construction illustrated on page 39.



CLAUS SPRECKELS BUILDING, SAN FRANCISCO, CAL.

REID BROTHERS, Architects.

All the exterior of this building, above the 16th story, is a Gray Terra Cotta and Roofing Tile to match the sandstone below that line ; we furnished this ; also all the Hollow Tile Partitions throughout the interior of the building.



HALL OF JUSTICE, SAN FRANCISCO, CAL.

SHEA & SHEA, Architects.

We furnished for this building our standard shape Gray Brick, Shade No. 60, with Terra Cotta Trimmings to match.



YOUNG BUILDING, SAN FRANCISCO, CAL.

KENITZER & BARTH, Architects.

We furnished for this building our standard shape Gray Brick, Shade 60, with Terra Cotta to match.



FIDELITY TRUST COMPANY'S BUILDING, TACOMA, WASHINGTON.

BURNHAM & ROOT, Architects.

We furnished the Buff Terra Cotta Trimmings, also the Hollow Tile Fire Proofing for the interior of this building.



CLARK BUILDING, SAN FRANCISCO, CAL.

EDWARD R. SWAIN, Architect.

We furnished our standard shape Buff Brick, Shade No. 38, and Terra Cotta to match for this building.



HALE BROTHERS' BUILDING, SAN FRANCISCO, CAL.

REID BROTHERS, Architects.

We furnished for this building our Roman shape Cream White Brick, Shade No. 75. and Cream White Terra Cotta, Shade No. 205.



SPOKANE CLUB BUILDING, SPOKANE, WASHINGTON.

JOHN K. DOW, Architect.

We furnished our standard shape Mottled Cream White Brick and Cream White Terra Cotta, Shade No. 205, for this building.



BURKE BUILDING, SEATTLE, WASHINGTON.

E. H. FISHER, Architect.

We furnished the Red Terra Cotta Trimmings for this Building.



MISSION HIGH SCHOOL BUILDING, SAN FRANCISCO, CAL.

HAVENS & TOEPKE, Architects.

We furnished for this building our Roman shape Buff Brick, Shade No. 38, and Buff Terra Cotta, Shade No. 220.



SPRING VALLEY WATER WORKS BUILDING, SAN FRANCISCO, CAL.

CLINTON DAY, Architect.

We furnished for this building a cream white Roman shape Brick, with Terra Cotta to match; also the Hollow Tile Fire Proofing for the interior, and our system of Fire Proof Roof Construction shown on page 39.



AFFILIATED COLLEGES BUILDINGS, SAN FRANCISCO, CAL.

J. E. KRAFFT, MARTENS & COFFEY, Architects.

We furnished for these buildings our standard shape Buff Brick, with Terra Cotta Trimmings to match.



MEIER & FRANK CO.'S BUILDING, PORTLAND, OREGON.

WHIDDEN & LEWIS, Architects.

We furnished for this building our Roman shape Brick, Shade No. 38, and Cream White Terra Cotta Shade No. 2-5



SANTA FE DEPOT, FRESNO, CAL.

The roof of this building is covered with our "S" Shape Spanish Tiles.



SAN FRANCISCO VEREIN BUILDING.

SALFIELD & KOHLBERG, Architects.

We furnished for this building our Roman shape Buff Brick. Shade No. 35, with Terra Cotta Trimmings to match.



OAKLAND GAS LIGHT AND HEAT CO.'S BUILDING, OAKLAND, CAL.

COXHEAD & COXHEAD, Architects.

We furnished the Buff Terra Cotta and Brick used in this building.



THE VAN NUYS HOTEL, LOS ANGELES, CAL.

MORGAN & WALLS, Architects.

We furnished for this building our Cream White Terra Cotta



RESIDENCE MR. CHARLES PAGE, SAN FRANCISCO, CAL.

FRANK S. VAN TREES, Architect.

We furnished for this residence our Roman shape Dark Buff Brick, Shade No. 45.



RESIDENCE MR. JOHN D. SPRECKELS, SAN FRANCISCO, CAL.

REID BROTHERS, Architects.

Our Cream White Terra Cotta, Shade No. 205, was the only material used in the exterior of this residence from the foundation to the top of the baluster course.



ELITE BUILDING, HONOLULU, H. I.

O. G. TRAPHAGEN, Architect.

We furnished our Roman shape Cream White Brick, Shade No. 75, and Cream White Terra Cotta, Shade No. 205, for this building



MERCANTILE LIBRARY BUILDING, SAN FRANCISCO, CAL.

PISSIS & MOORE, Architects.

We furnished the Buff Terra Cotta Trimmings for this building.



BOSTON DRY GOODS STORE, LOS ANGELES, CAL.

EISEN & HUNT, Architects.

We furnished for this building our Roman shape Buff Brick, Shade No. 34, with Cream White Terra Cotta Trimmings.



DELMONICO CAFE, SAN FRANCISCO, CAL.

PISSIS & MOORE, Architects.

We furnished for this building our Roman shape Buff Brick, Shade No. 38; also the Cream White Terra Cotta Trimmings.



HOMER LAUGHLIN BUILDING, LOS ANGELES, CAL.

JOHN PARKINSON, Architect.

We furnished for this building our Cream White Terra Cotta.



ST. DUNSTAN BUILDING, SAN FRANCISCO, CAL.

CLINTON DAY, Architect.

We furnished for this building our Cream White Terra Cotta, Shade No. 205, and our Roman shape Cream White Brick, Shade No. 75.



THE HUNT HOTEL, LOS ANGELES, CAL.

JOHN PARKINSON, Architect.

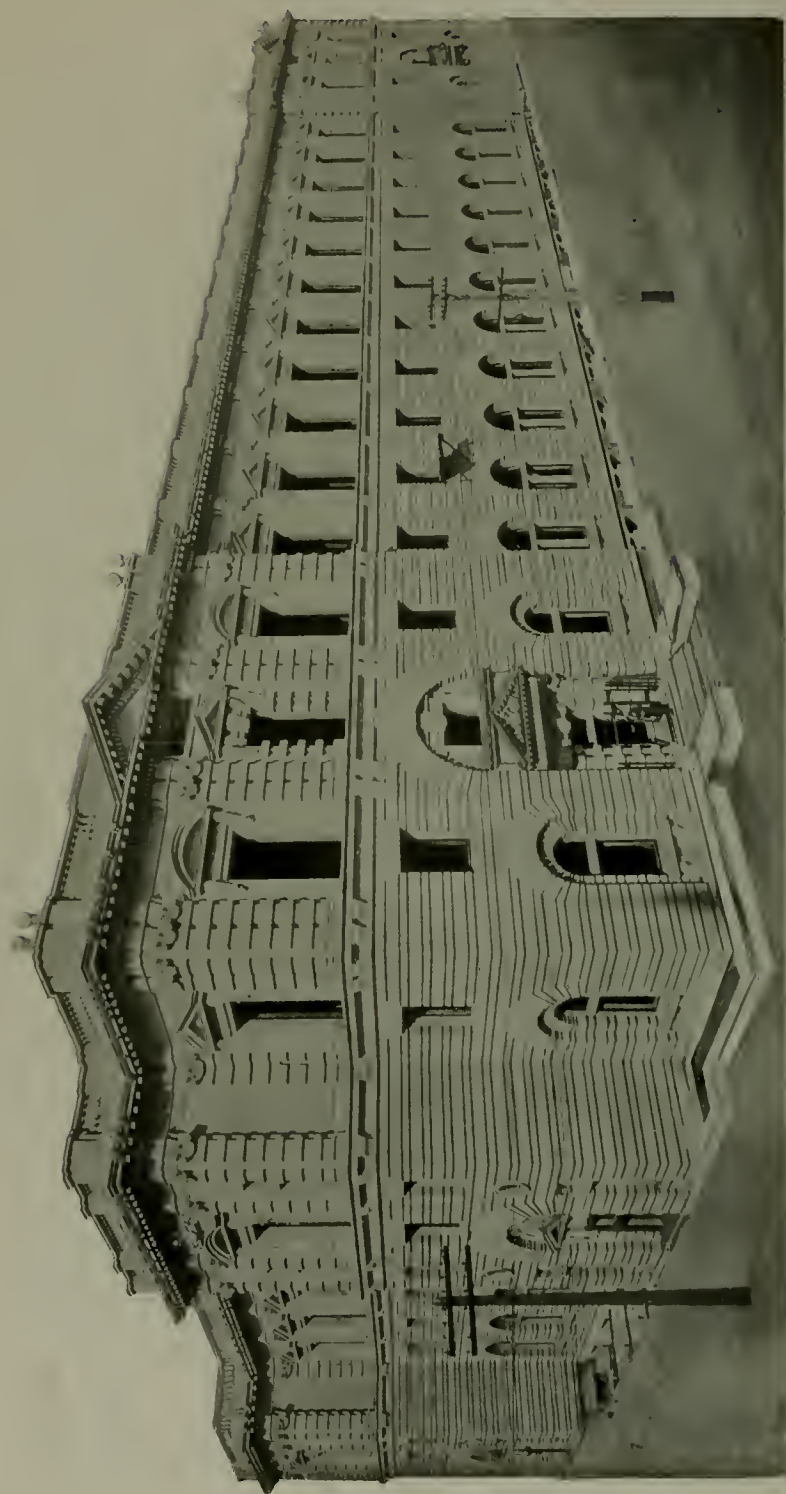
We furnished for this building our Cream White Terra Cotta, Shade No. 205.



FOURTH STREET ENTRANCE, HUNT HOTEL, LOS ANGELES, CAL.

JOHN PARKINSON, Architect.

Our Cream White Terra Cotta, Shade No. 205, was used in this entrance.



UNITED STATES POST OFFICE AND COURT HOUSE, SEVENTH AND MISSION STREETS, SAN FRANCISCO, CAL.

We furnished for this building all the Full and Dull Glazed Cream White Enameled Terra Cotta, and about four hundred thousand Cream White, Blue and Brown Enameled Brick; also all the Hollow Tile Fire Proofing for the partitions and the Vitrified Tile for the roof.

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